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MEMORIES OF THE MONTHS

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London, Edward Arnold, 1900.

Memories of the Months

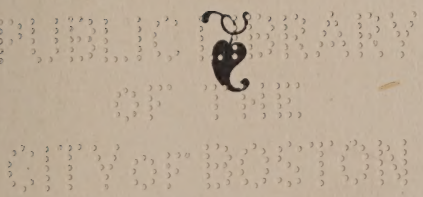
SECOND SERIES

BY THE RIGHT HON.

SIR HERBERT MAXWELL

BART., M.P., F.R.S.

Horas non numero nisi felices



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DEDICATION TO

B. M. M.

Mademoiselle, je commence à écrire
parceque je n'ai rien à faire ; je
finis parceque je n'ai rien
à dire.

PREFACE

It is probably a mere philological accident, devoid of moral significance, that, in the whole of the English version of the Old and New Testaments, there is not a single instance of the use of the substantives 'enjoyment' and 'happiness.' Frequent mention of 'joy' and 'pleasure,' but the first seems to verge too closely upon the boisterous, or at least the exuberant, and the other to have become tainted too grossly in human handling to express precisely the sensation stirred by weather fair or foul, by noble landscape, by the every-day operations of nature, and by communion, oral or literary, with higher intellects than our own. One derives pleasure from, and feels joy in, all such things, but they inspire something incapable of interpretation by either of these terms; something which the French denote by *bonheur*, and we, in defiance of obvious etymology, by 'happiness.'

This mood of happiness is not to be separated from a sense of gratitude towards an object more or less definite, yet is so fleeting withal, that the mood and

the sense are prone to pass away together and leave no trace upon memory. Not upon conscious memory, at least; for it is believed that every experience sets an impression, indelible except by disease, upon the almost incalculably delicate machinery of reminiscence, and that such impression may be revived at will, provided the intelligence has not lost record of the precise tissue or ganglion in which it is stored. Some memories we constantly recall without conscious effort, familiarity rendering them easy of access; others, deeply overlaid by later experience, have to be painfully sought for, or lie dormant till some chance—a sentence spoken or a passage read—drives the blood along the delicate capillaries about their hiding-place. 'Curious that I never remembered that till now,' you ejaculate, as some long forgotten scene or passage leaps to light, its outlines, even its details, scarcely dimmed by long immurement.

Impressions of happiness or enjoyment seem to be more transient than those of distress or suffering. Few spirits are of such fibre that they can bear the legend of the sundial—*Horas non numero nisi serenas*; yet many a weary or anxious mind would derive refreshment from reflection upon the moments when it was agreeably employed upon small matters, did it but possess an easy clue through the labyrinth of retrospect. There is no such simple clue as written notes, not in

the hazardous form of a regular journal—that is a far different affair—but more in that of a commonplace-book. Even that has the disadvantage of getting too bulky, not to mention the unhandiness of manuscript for reference. Therefore, a few years ago, I printed some pages from the notebooks of several seasons, which met with a very indulgent reception from the public, notwithstanding that some of them had appeared already in newspapers. So many persons, both in this country and America, wrote to me in reference to *Memories of the Months*, that I am encouraged to hope that others, besides myself, may derive some recreation from a second series.

HERBERT MAXWELL.

MONREITH, *September* 1900.

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January

I

THERE was a time, if belief may be placed in some annalists, when certain practices of the French nobility gravely engaged the attention of the legislature. The story goes that a fashionable restorative for a seigneur fatigued with the chase, and a sure remedy for cold feet, was to plunge the said feet into the entrails of a freshly-killed peasant. It was an expensive recipe in days when peasants, counting as live-stock upon the lord's lands, constituted an important part of his wealth, and probably was only in use in the leading families; nevertheless, it was enacted that no lord returning from hunting should use up more than two peasants in this way—one for each foot. Western Europeans have shifted their sentimental standpoint since those distant and legendary days. We are now so far from being indifferent to preserving the humblest human life, that the resources of science are strained to retain the vital spark, even in those frail shards of humanity which, in a rougher age, would have been broken in a very few years. Nobody questions the moral duty of this, though it is permitted

Is Animal Life Sacred?

to recognise some disadvantages accruing therefrom to the human race, regarded simply as vertebrate creatures.

But in speculating on the sacredness of life other than human, the guiding principles are not so clear. Vegetarians apart, there are many earnest well-meaning people who hold it unlawful to sacrifice life—animal life—for any reason short of necessity. Be it said in passing that these benevolent people draw the frontier between the animal and vegetable kingdoms with a precision which scientific men may envy, but cannot emulate. Some of the humbler forms of cryptogams have been ranged alternately in one realm and the other, and still occupy the debatable land between the two. Let us not, however, shelter ourselves behind any such nice distinctions. The question to be answered is simply this—whether there is any peculiar reverence due on moral grounds to what is popularly understood as animal life. Let us not even take our stand on the well-fortified position of food supply, but pass at once to ground where necessity cannot be relied on as a defence.

The tender-hearted people above referred to are specially severe on what we are brought up to call field sports, but what they define as 'blood sports.' It is not *necessary*, they say, to take the lives of animals of the chase, therefore it is cruel and demoralising. Life is a sacred thing; and they invoke the legislature to protect it, just as it has protected domestic animals against the infliction of suffering. Now if life, *per se*, be admitted

to be a sacred thing, see what a curious dilemma we are landed in! But for fox-hunting, foxes would have become as extinct as wolves in the British Isles long before our day. Fox-hunting, then, actually has been the means of preserving the 'sacred thing,' and tens of thousands of foxes have owed their existence to this typical 'blood sport.' In pheasant shooting the case seems still stronger. A man decides how many birds he will have in his covers the following season—five hundred, a thousand, five thousand, according to his means and the extent of his woods. He is absolute master of the 'sacred thing' at both ends; he can call into existence as many creatures as he can pay for, and put an end to their existence on a given day, provided he and his friends hold straight.

'Ah! but,' exclaims the humanitarian, 'that is the worst case of all: life *is* sacred, and man has no right to call it into existence merely for his amusement.'

Indeed! then let it be hoped, for sake of consistency, that the schoolroom of the humanitarian contains no little girls who delight in mating canary birds, of which the offspring are condemned to life-long imprisonment.

Be it noted that I am not discussing at present the ultimate or immediate effect on human morals of playing with life—creating or destroying it—but whether life is a thing with which a man may play in that manner without infringing the abstract moral law. One of the most plausible points in the humanitarian argument is that it is unlawful so to play with it; and it is a point, in my judgment, far more worthy of consideration

than any used by those who denounce field sports on political or economical grounds.

If we turn to Nature for light on the subject, we get it—plenty of it—but of rather a lurid kind. Nobody can have ventured beyond the threshold of animal biology without being amazed by the recklessness with which the 'sacred thing' is squandered. The mortality—especially the infant mortality—is something appalling. In England, during the decade from 1881 to 1890, the rate of human mortality sank to the unprecedently low figure of 19·1 per thousand per annum. In many organisms which pass through several metamorphoses, not one in a thousand reaches maturity. As an example of this wastefulness of life, let us consider the domestic routine of a common British insect known as the oil-beetle (*Meloe*) as lately elucidated by M. Fabre and Professor Miall. In its mature state this is a sluggish, unlovely creature, feeding harmlessly enough on buttercups, but endowed with the unpleasant faculty, enjoyed by many *Coleoptera*, of distilling from its joints, when interfered with, a foul-smelling juice. Every female is believed to lay three batches of eggs in the course of a summer, each consisting of from eight to nine thousand. They are deposited in a hole in ground frequented by humble bees. In due time, if all goes well, each egg emits a small, exceedingly active, yellow larva. No waste of life so far; but mark what follows. The horde of larvæ run about in desperate haste, trying to match the colour of their bodies with the yellow centre of a

composite flower, such as a meadow marguerite. To do so, they ascend every stem they encounter; many of these are only grass stems, others bear flowers of the wrong colour, which obliges them to descend and climb another stem. A large percentage of these creatures perish in the quest. A considerable number, however, find a flower of the right kind, ensconce themselves among the anthers, and lie perfectly still, waiting the next momentous event. This will be the visit of a flying insect. No sooner does one alight on the flower than the concealed larva seizes the hairs of its thorax with claws specially contrived for the purpose, and is borne off—whither? Ah, that is the strangest thing of all. If it is a fly, a moth, a honey-bee to which it has clung, the larva perishes. It must be a humble-bee of a particular sort (*Anthophora*), by help of which alone the larva can pass into its next stage. Supposing it to have been lucky enough to have got into the right train (perhaps not more than one in a thousand do so), it has got some delicate work before it still. It must hold on to its host till she flies home in order to deposit an egg in the cell prepared for it. This cell is full of honey, on the surface of which the egg is intended to float. If the young oil-beetle were to fall into the honey, it would assuredly perish; it must wait till the egg leaves the body of the bee, jump on it at that moment, and sail about on the egg. It then begins its first meal, devours the contents of the egg, and changes into a fat maggot. In that state it acquires, for the first time, a taste for honey; it empties the store

provided for the baby bee, goes asleep in the form of a chrysalis or pupa; and, finally, emerging a full-grown oil-beetle, crawls forth to seek a mate and begin a fresh chapter in the sordid history of its race.

Now what does all this suggest? Does it not appear that if life were really a 'sacred thing' in a sense above other natural forces, such as light and electricity, the Designer of Nature would not have flung it about in this contemptuous haphazard way? Would He not have devised some means for perpetuating the race of oil-beetles without such a prodigious rate of mortality? And what curious problems present themselves about the life by which we set such store! Is material human life the same in essence as that of oil-beetles and foxes and pheasants? If not, where is the line to be drawn? To those who like to imagine human life as something higher in kind, as well as in degree, than that of the beasts of the field, it is a discouraging thought that each is subject to similar influences, depends equally on regular nourishment, endures each its allotted span. It does not require proficiency in the researches of Malthus to prove that men and women multiply up to the limits of food supply with as much certainty as mites in cheese or elephants in a jungle. Is food plentiful in any given district? There society will flourish and abound, to melt away as soon as there is sign of shrinkage.

And there, for the present, must be left this knotty question.

II

These dark winter days and long evenings are famous for looking up old friends in forgotten shelves. The bibliography of field sports would, in itself, fill many volumes, and perhaps no department of modern literature, except fiction, 'pans out' so poorly. Much of it consists of business-like instruction how to kill, or a ledger-like chronicle of what has been killed; here and there a good soul is moved to the endeavour to impart to the public some of the emotions which affected him in the presence of wild nature, resulting either in unfluent rhapsody which stirs nobody, or in liberal extracts from the poets which everybody either knows already or skips. But there are exceptions. Here and there in the interminable catalogue are books which it is a privilege to know; books that it is refreshment to drop into; books that speak of a world which seems far fresher than our own, more leisurely, less methodical. Nowadays, for instance, when a man goes a-fishing, he falls into a fidget unless his fly is perpetually on the water. Perhaps there is some record to beat, which can only be done (and records exist but to be beaten) by feverish attention to business; or the water is in prime order —a condition which, in modern salmon rivers, seems far more fleeting than of yore; not a moment must be lost; Viator, Venator, Poietes, Physicus—all the simple interrogators that used to tempt Piscator into delightful irrelevancy—have been hustled off the scene; we have

William Scrope

no idle moment for milkmaids and syllabubs; information and instruction must be compressed into business-like paragraphs.

Heaven forbid that we should revive the dear shades! This is no scene for them. We have no time to waste with Theophilus while, 'lest precipitancy spoil his sport, he preponders his rudiments,' nor patience for Richard Franck while he 'expostulates the antiquities of Kilmarnock' when we want to read about fishing. Nevertheless, there are moments when it is good to meet with a sportsman who retains traces of a liberal education, who does not make us shiver by treating 'lay' as an intransitive verb, and enriches his narrative with observations on character and scenery. Such a writer is William Scrope, whose whole literary works are comprised in two rather brief and very charming volumes—*The Art of Deer-stalking* and *Days and Nights of Salmon Fishing*. If ever there were an exception to Dr. Johnson's dogma, that none but a blockhead ever wrote except for money, this writer were he. Scrope, the owner of Castle Combe, in Wiltshire, the last male representative of the historic Lords Scrope of Bolton, was of perfectly independent means, and wrote, as he painted, purely as an amateur —out of love of the art. Sir Walter Scott pronounced 'the little artist'—as he calls him in his journal—to be 'one of the best amateur painters I ever saw, Sir George Beaumont scarcely excepted'; but Scott was sleeping in Dryburgh before *The Art of Deer-stalking* was written. By that time Scrope, having had experi-

ence of ten years in the forest of Athol, was well qualified to undertake the first treatise ever published on killing red deer with the rifle. Nevertheless, he did so with a degree of trepidation which seldom interferes with the scribbling of smaller men. He remembered how, thirty years before, Scott had slated Colonel Thornton in the *Edinburgh Review*—

> '"Shall a poaching, hunting, or hawking squire presume to trespass on the fields of literature?" These words, or others of similar import, I remember to have encountered in one of our distinguished reviews. They ring still in my ears, and fill me with apprehension as it is; but they would alarm me much more if I had attempted to put my foot within the sacred enclosures alluded to . . . Literature?—Heaven help us!—far from it: I have no such presumption: I have merely attempted to describe a very interesting pursuit as nearly as possible in the style and spirit in which I have seen it carried out.'

In spite of this disclaimer, Scrope, who was a well-educated, widely-read traveller, must have had some suspicion that he was producing something better than the stuff which passed for sporting literature during the first half of this century. What Apperley, writing as 'Nimrod,' had done for fox-hunting, Scrope did, and may have intended to do, for deer-stalking and salmon-fishing. Like Nimrod, he always had a quotation from the classics ready; this was the recognised elegancy of an age when the House of Commons would listen patiently to lengthy extracts from the Æneid. Field sports had long been the monopoly of hard-drinking squires and

lairds; Scrope's fastidious taste had often been wounded by the habits of his associates; and it is amusing to see how tenderly he deals with topers, and how cautiously he attempts to limit the deer-stalkers' libations and prescribe a regimen for the forest—

'"O'Doherty, be merciful; Christopher, put down thy bristles; for, lo, I will not limit him, as Sir Humphrey does his fisherman, to the philosopher's half-pint of claret. . . . The best part of a bottle of champagne may be allowed at dinner; this is not only venial, but salutary. A few tumblers of brandy and soda-water are greatly to be commended, for they are cooling. Whisky cannot reasonably be objected to, for it is an absolute necessary, and does not come under the name of intemperance, but rather, as Dogberry says, or ought to say, 'it comes by nature!' Ginger-beer I hold to be a dropsical, insufficient, and unmanly beverage; I pray you avoid it; and as for your magnums and pottle-deep potations, why, really, at this season of the year, as Captain Bobadil says, 'We cannot extend thus far.'"'

Only to peruse such a prescription makes degenerate modern temples throb. Fancy taking the hill to any purpose the morning after a bottle of champagne and 'a few tumblers' of brandy and soda-water; followed by whisky!

Once get him upon the heather, and Scrope proves a delightful companion. 'You breathe the very air of the mountain; you hear the bleat of the hill sheep, the hum of the heather flies, the roar of the autumn stag. You swelter in the blazing sun on the lee side of the ascent; you cower away from the wet blast under the boulder-strewn crest; you are led through all the

breathless vicissitudes of the stalk to the moment of triumph or of hopeless chagrin; yet your guide is never so entirely absorbed in the sport as to forget the story which gives historic dignity to crag and waste, to glen and moor. There is a great deal in *The Art of Deer-stalking* besides the stalking of deer, and the book was nobly illustrated by its author, and by Edwin, Charles, and Thomas Landseer.

Excellent, however, as was Scrope's first essay in letters, his second and last was better. There was not one salmon-fisher in his day for fifty there are in our own; there were, on the other hand, many more salmon, so there is no lack of sport to be described. Scrope had cast angle in many waters, but in *Days and Nights* he recounted only his experience on the Tweed; what land so fascinating as Tweedside for a mind like his? He rented the Pavilion near Melrose for many years, and naturally grew into friendship with 'The Shirra',' of whom his pages are full of reminiscence. Nor the Shirra' alone, but Tom Purdie, Scott's immortal henchman, is brought before us as he lived; we hear his own quaint phrases, even as Scrope heard them in far-off summer days. *Magni nominis umbra*—sons have failed the line of Abbotsford, but still the stem of Purdie flourishes, inseparable from Craigover, the Webbs, Bloody Breeks, and other famous salmon casts where Scrope found his delight—

> 'Ercildoune and Cowdenknowes,
> Where Homes had ance commanding,
> And Drygrange, with its milk-white ewes,
> 'Twixt Tweed and Leader standing.

The bird that flies through Redpath trees
And Gladwood banks each morrow
May chant and sing sweet Leader Haugh
And bonny howms o' Yarrow.'

In scenes like these a fisherman like Scrope, with an eye for landscape and an ear for legend, might well seek his pleasure, but not till he had companied with Scott could their spirit thoroughly enter into him. He confesses as much in sentences more homely, but not less tender, less passionate but not less faithful than the verse in which Moschus wailed for his lost Bion:—

'My first visit to the Tweed was before the Minstrel of the North had sung. . . . The scenery, therefore, at that time, unassisted by story, lost its chief interest; yet was it all lovely in its native charm. Since that time I have seen the cottage of Abbotsford, with its rustic porch, lying peacefully on the haugh between the lone hills. . . . I have seen that cottage converted into a picturesque mansion, with every luxury and comfort attached to it, and have partaken of its hospitality; the unproductive hills I have viewed covered with thriving plantations, and the whole aspect of the country civilised. But amidst all these revolutions, I have never perceived any change in the mind of him who made them. . . . There he dwelt in the hearts of the people, diffusing life and happiness around him; he made a home beside the border river, in a country and a nation that have derived benefit from his presence and consequence from his genius. From his chambers he looked out upon the grey ruins of the abbey, and the sun which set in splendour behind the Eildon Hills. Like that sun, his course has been run; and though disastrous clouds came across him in his career, he went down in unfading glory . . . Abbotsford,

Mertoun, Chiefswood, Huntley Burn, Allerley!—when shall I forget you?'

Then, for a character sketch, what could beat 'Tom Purdie's muckle fish'? True, it is a dark deed that is related, one that every legitimate sportsman is bound to reprobate; for these were the old, wicked days when leistering was lawful, and the muckle fish was an enormous kipper in Caberston Throat—'mair like a red stirk than aught else'—so huge that Tom believed it was the Devil himself tempting him to break the Sabbath. He *had* broken it, indeed, by spying the water instead of going to Traquair Kirk; but he had the grace to wait till midnight, till he roused the 'nout-herd callant' to go in quest of the mighty kipper. How they found it, how Tom struck it, and how the fourteen-pound leister 'stottit off his back as if he had been a bag o' wool,' must be read in the original taken down from Tom's lips. Tom rarely missed his aim, and at first he felt convinced that he had had Satan to deal with. A few minutes' reflection, and, his blood being up, he argued himself and Sandy into the belief that the Devil could never have shown himself in broad daylight on the Sabbath. It must be a fish after all; they renewed the assault; and, after a fearful tussle, secured their quarry, which was so big that 'as I waded the water wi' him, leadin' Sandie by the hand, his neb was above my head, an' his tail plash'd in the water on my heels.'

III

Science in want of a common language

Mr. Seager's *Natural History in Shakespeare's Time* is an amusing compilation, affording useful insight into the methods of pre-scientific research. No statement too dogmatic, no falsehood too flagrant, no explanation too preposterous, to be presented and accepted in those days as revelations of natural phenomena. Once a lie got into print (and Elizabethan publishers were by no means squeamish about what passed through their hands) it took centuries to overtake it; one writer after another copied it; and any one who should express any doubts as to the breeding of barnacle geese from shellfish or the influence of the phases of the moon on the climate of Great Britain (as distinguished from the rest of the globe) was looked upon as a troublesome fellow incapable of sound philosophy. Writers on natural science seem to have been afraid of showing imperfect erudition, unless they began by faking up all the rubbish that had found utterance by their predecessors.

At the present day danger of another kind besets the diffusion of knowledge. There is such a multitude of patient systematic workers and observers in every quarter of the globe, such an abundance of scientific literature in almost every civilised language, that it is difficult for those who are not active members of learned societies to keep abreast of the discoveries which reward the student in every department. Even the foremost and most fruitful workers are conscious

of this embarrassment of information. It is some years since I listened with sympathy to Dr. Dorn in his laboratory at Naples, confessing with a sigh that he was outpaced; that it would take six heads to deal with the advance of knowledge, even in his special branch—marine biology. He lamented that Latin had been abandoned as the language of science common to all nations. At present the proceedings of learned societies are published in so many languages that it is impossible for one man to overtake what is important in each.

IV

Protective Coloration

One of the phenomena most familiar to the field naturalist, which has hitherto baffled understanding, seems to have received interpretation by a well-known American ornithologist, Mr. Thayer. The design of protective coloration in bird and beast is often sufficiently obvious. Even the stripes of the tiger and the spots of the leopard have been recognised by hunters as harmonising completely with their surroundings in brilliant sunshine, while our own partridge, ptarmigan, hare, and other creatures are conveniently assimilated in hue to that of their usual haunts. But nobody hitherto has hit upon the reason why the underparts of terrestrial birds and mammals are so often white or very light coloured.

That this is part of a scheme of protective coloration is perhaps the last idea that would occur to most people. It would be much easier to account for it

on the grounds of economical design, that the colouring pigment should not be supplied where protective colour was of no use. Mr. Thayer attempts to prove by some simple experiments that the whiteness of breasts and bellies in these animals has a far deeper significance. At a meeting of the American Ornithologists' Union at Cambridge, Mass., on November 10th, 1897, he took three sweet potatoes, smeared with a sticky material, and fixed them horizontally on a wire stretched a few inches above a dusty road. Dust from the road was then sprinkled over them, so that they harmonised closely with the background, and the undersides of the two end ones were painted pure white, the paint being blended gradually into the brown on the sides. Viewed at a distance of several yards, the painted potatoes *disappeared from sight*, while the unpainted one in the middle was plainly visible in strong relief, appearing many shades darker than the road, which it had been prepared to match. Mr. Thayer next explained that the white paint on the undersides of the potatoes, corresponding to the white underparts of terrestrial birds and mammals, was essential to concealment, though, when viewed close, it made them more conspicuous. The effect of it was to neutralise the shadow, which, unless counteracted in this way, renders the whole object far darker and more conspicuous than it would be if laid close to the ground. To prove this, he proceeded to paint with white the underside of the middle potato, whereupon it immediately disappeared from view of the spectators.

The experiment was afterwards tried on a green lawn. Of two potatoes painted to match the grass, one was painted white on the underside. This one became practically indistinguishable at a little distance, while the other one, all green, was plainly seen, and appeared much darker than the lawn.

This experiment, which anybody may try for himself, is remarkable, not only for its simplicity, but because of its suggestiveness. That hares, deer, partridges, and female water-birds should be closely assimilated to the background of their breeding haunts is a striking instance of provision for the protection of the species; but people are apt to view it vaguely as the result of an automatic process such as causes all the book-backs in a venerable library to assume a generally uniform complexion. Here, in the whiteness of the underparts, we seem to touch on evidence of a deeper and more deliberate design; the stratagem of an external intellect to neutralise the danger arising from the law of light and shade. To hold that the prevalence of white underparts had an accidental origin seems to strain to the utmost the doctrine of evolution and survival of the best protected; although, on the other hand, it may be claimed as additional evidence in favour of that doctrine. It will be observed, by the by, that white waistcoats have never come into favour among grouse. On the contrary, living as they do among dark heather and darker peat, they have nothing to fear from their own shadows.

Talking of protective coloration reminds one of the

singular exception to its adoption among the females of British *Anatidæ*. In the sheldrake, perhaps the most conspicuously coloured of all our ducks, there is very little difference in the plumage of male and female. Each wears a splendid livery of chestnut, black, and bottle-green on a ground of swan-like white, with scarlet bills and legs. Such a garb is wholly unsuitable for the privy purposes of incubation above ground, so the female sheldrake creeps into rabbit burrows, lays her eggs in them far beyond human arm's length, and thus gratifies at once the two strongest impulses in the feminine mind—the maternal instinct and the love of finery. It is not easy to decide whether subterranean nidification was resorted to because of the brilliant plumage, or whether the female sheldrake, unlike other ducks, earned the privilege of wearing fine feathers in consideration of laying her eggs out of sight. No such reward has been bestowed on the sand-martin, which, although incubating persistently underground, remains the dingiest of all the *Hirundinidæ*. This little bird (*Cotile riparia*) is the earliest of its tribe to arrive, and often attains a spurious fame in local prints by being heralded as the 'first swallow.'

V

A new Eagle

The crown of the collector's ambition is reached when he adds a new species to the list of vertebrates. Each year renders this crown more difficult to attain; for the forests and floods, the

mountains and plains of the habitable parts of the earth have been pretty completely ransacked by this time. Of invertebrate creatures the catalogue is still capable of indefinite expansion; but of birds, beasts, reptiles, and fish there can remain no more than a very small minority to be revealed. The greater glory then is due to Mr. Whitehead in his discovery (reported in 1898) of the great forest eagle of the Philippine Islands (*Pithecophaga Jeffryi*). That this magnificent bird, of which the only specimen obtained weighed nearly twenty pounds, should have escaped hitherto the vigilance of wandering naturalists, is owing to the impenetrable nature of its haunts, which are the dense forests of the island of Samar, where many of the trees are upwards of two hundred and forty feet in height. Day after day Mr. Whitehead watched these mighty eagles circling far out of shot near his camp, till at last one of his collectors, having marked a male bird alighting on a lofty tree, stalked it and succeeded in lodging a single buckshot in the neck. Even then the booty was far from being secured, for the tremendous talons of the dead bird still clung to the branch; but one of the natives climbed the tree and released them. The skin now in the British Museum, shows an aquiline character of the highest type. The head is adorned with a shaggy crest; the skull is larger even than that of the harpy, which seems to be the nearest allied species; while the bill is exceedingly powerful and equalled in depth by that of only one bird of prey hitherto known—Pallas's sea-eagle. Its favourite prey consists of green monkeys,

though it does not disdain to vary its diet by occasional raids on the poultry of the villagers.

VI

The Snowdrop

There is no more constant timekeeper than the snowdrop. It seems constitutionally insensible of temperature; for, although hard frost may retard the blossoms by making the ground like iron, through which they cannot be thrust, they make their appearance simultaneously with a thaw. On the other hand, this curious little plant will not respond to abnormal warmth, natural or applied. You may coddle the bulbs in pots, and put them in a warm frame with crocus, hyacinth, narcissus, and lily of the valley,—these last will reward you by anticipating their natural season by many weeks. Not so the snowdrop; unless the ground outside be really frost-bound, the protected flowers will keep exact pace with those in the lawn turf. The present winter (1897-8) has been unusually mild, yet the first snowdrops have appeared just at the usual time—between Christmas and the New Year. That is their constant date in the mild west near the sea. On the east coast and in the London district, snowdrops will not be seen till a full month later.

Botanists do not admit the snowdrop as a true native of Britain. From the Caucasus to Central Germany, they say, is its legitimate range; but there is no pretty weed which has established itself more firmly as a British colonist, in those districts, at least, where soil

and climate suit it. In the Scilly Isles, strange to say, where bulbous plants are cultivated to produce hundreds of tons of early blossom, the snowdrop will scarcely live; while four hundred miles to the north, on the misty Atlantic seaboard, it spreads from garden to lawn, from lawn to woodland, and sheets the banks with mimic snow.

VII

Gorse and Gromwell

'When the gorse is out of bloom, kissing will go out of fashion,' is the conceit of amorous English rustics. In Scotland, where, as everybody knows, kissing was not practised until the Union, the perpetual flowering of the gorse has given rise to the distich—

> 'When the whin gangs out o' bloom,
> Will be the end o' Em'brugh toun.'

Now this welcome property of the gorse has been attained by a floral subterfuge—harmless indeed, but distinctly insincere. It is not known to everybody that there are two kinds of gorse equally distributed over Britain, very like each other, so much so that they are regarded by some botanists merely as varieties of the same species. But the difference is invariable between *Ulex europæus*, the gorse dear to foxhunters, and *Ulex nanus*, a dwarfer shrub, with spines of deeper green and flowers of ruddier gold. Both kinds, especially the last-named, have a perpetual flowering tendency; but if *Ulex nanus* were not present to take up the

running in autumn and winter, there would be a distinct risk of the calamities indicated respectively in the English and Scots proverbs. There is only one hardy plant known to me which never fails to bear flowers, and lovely ones, on every day in the year. It is one of the borage family, the same to which we owe our forget-me-nots, and goes by the name of the blue gromwell (*Lithospermum prostratum*). In its native southern Europe it flowers but once a year, under the influence of spring moisture; but in our dripping climate it is always growing, and having the almost unique constitution to enable it to dispense with rest, its dark evergreen sprays are always studded with charming stars of deep azure. It is a low shrub, of the stature of common heather, but more spreading, and relishes a slightly elevated mound set with lumps of stone to sprawl over.

VIII

Frosted Heather

Mr. Percy Grimshaw, in an interesting communication to a recent number of *Annals of Scottish Natural History*, has thrown a new light on what is too well known to the owners of moors as 'frosted heather.' This phenomenon, with which some observers have connected visitations of grouse disease, does not owe its origin, it appears, to frost, but is the result of the ravages of a small beetle (*Lochmœa suturalis*) which time to time increases to prodigious swarms. This insect only measures five millimetres in length (about one-fifth of an inch), and attacks the

roots of the heather, which withers away and looks as if it has been seared by frost. No remedy can be suggested, for this creature waxes and wanes without any apparent cause. All that we have gained is the knowledge that if 'frosted heather' is the cause of grouse disease, temperature has nothing to do with it. The idea which experience encourages is that grouse disease puts in an appearance in places where abnormal reproduction has raised the stock above the natural limit, whence it may spread by infection to other and less densely populated moors. Five or six years ago, when the vole plague was at its height in the Scottish lowlands, and sheep farmers were at their wits' ends because of their ruined pastures, when every hillside from Ettrick to Carsphairn was alive with the vermin, suddenly the creatures began to rot off in thousands, until the vole population shrank to normal and harmless proportions. So it is with grouse. In this district, Galloway, there remain many patches of one hundred to one thousand acres of moor and mossland, isolated among wide tracts of arable land. Each of these patches produces annually a few broods of grouse, but these never exceed the power of the ground to sustain them in health, and such a thing as a diseased bird has never been seen. Probably the heather beetle is subject to a similar natural and automatic check. Always present in the soil, some incalculable combination of favourable circumstances causes it to multiply abnormally, until Nature decrees, 'Enough! too much!' and the swarms die off. It is pretty clear that gamekeepers may dis-

miss 'frosted heather' from their long catalogue of causes of grouse disease.

IX

The Badger

Mr. Pease has done good service to British Zoology in drawing attention to one of our most interesting wild animals (though not the largest, as he describes it, for the red deer and the roe excel the badger in stature and weight). Perhaps his little treatise[1] has come in time to postpone the necessity for an epitaph on the last British brock; and it may be hoped that warm advocacy by one well known as a keen sportsman may redeem the race from unmerited obloquy, rescue it from the opprobrium which consigned it to the category of vermin, and restore it to its ancient position among beasts of venery.

It is rough, hard work, badger-hunting.

'I have, with my brother, Mr. J. A. Pease, started at 7.30 A.M. from home, worked a summer day with a slight refreshment at one, handled pick and shovel and spade, fought the terriers, and gone on through the afternoon, evening, and a black, wet night, without even a drop of water to slake our parched throats, deserted by all but one faithful workman, and on till the grey dawn of another day. . . . At five o'clock we secured a splendid pair of badgers, which we bore home on our aching backs, followed by our gallant little team of draggled and dirty terriers.'

The disposal of the game when taken is a problem. Mr. Pease finds that badgers make sympathetic pets,

[1] *The Badger*, a monograph, by Alfred E. Pease, M.P., London. Lawrence and Bullen, Ld. 1898.

but there must be limits to accommodation for them. They are not worth killing, unless you have a fancy for badger hams—reputed a delicacy in Ireland—or enter into a contract to supply a shaving-brush maker. But it is good to hunt them, says Mr. Pease, not only because it is stirring, invigorating sport, which takes you to the woodland early and late, but also because hunting is the only thing that will preserve a fine animal from extinction. Paradox this, as some may think, but the author quotes the parallel of fox-hunting. No foxhounds, no foxes; it is only fair hunting that can protect the badger from the fate which almost inevitably awaits him now when he is caught—that of being taken to a town to be brutally and repeatedly baited.

It is good to hear Mr. Pease dilate, with all a Yorkshireman's zeal and science, on the points and qualities of a good terrier—

> 'What thousands of little curs there are called terriers—and fox-terriers—that will no more go down a fox-earth than go up a chimney! How many thousands of the best of these, however finely shaped for the show-bench, that have no more idea of their profession and the duties for which Nature made them, and from which they derive their name, than the man in the moon.'

How few there are that deserve the encomium pronounced, in exquisite dialect, by the old shoemaker on one of the author's dogs which had thrown six big rats over her shoulder in half as many seconds: 'Si' the, lads! Worry's t'yan fer pickin' t'wick out on 'em'

—which, being interpreted into Mercian speech, would run: 'Look ye, lads! Worry's the one to pick the life out of 'em.'

Well, leaving Mr. Pease to settle with the Humanitarian League the ethics of badger-hunting, a word of praise must be given to his notes on the habits and food of an animal hitherto obscurely understood. A keen preserver of both game and foxes, he acquits the badger of any serious detriment to the first, though it cannot resist a nest of young rabbits, to which it delights to dig down, and proves that the crime of crunching the heads of fox cubs attributed to the badger is really the work of a depraved old dog fox. Mr. Pease discredits Mr. Vyner's statement in *Notitia Venatica* about the extraordinary period of gestation in badgers, a statement only made on hearsay. His own observations, which are worth any amount of theory and second-hand information, tend to fixing nine weeks, instead of twelve months, as the period of pregnancy.

This brings me to the only fault I have to find with Mr. Pease—the somewhat unworthy slights he puts on men of science. Here is one instance:—

> 'A man who is not able to tell you everything, as these learned men do, about every living creature may from a country life and experience be able to correct some errors.'

Precisely; and warmly will men of science welcome the observations of Mr. Pease, who has made good use of opportunities denied to them, and watched badgers

at play on summer nights, or at work dragging out the old bedding and bringing in new to their earths. The field naturalist and the student of the museum and dissecting-room are inseparable allies; their work is mutual, though distinct, and they ought not to show each other up. How could Mr. Pease tell us, as he does, that the badger is the nearest approach to a bear that England can boast, were it not for the labours of such men as Buffon, to whom his reference is something short of generous. Perhaps, however, the expressions used by Mr. Pease convey more than he intended. All lovers of country life owe him much gratitude for an excellent little work.

X

Mercy in Field Sports

The claim of sportsmen to be considered merciful must ever remain an absurd paradox in the eyes of those unversed in woodcraft. All killing is cruel, runs their syllogism; the object of sport and sportsmen is killing; therefore sport and sportsmen are cruel. If the major premise were faultless, I should certainly not have a word to say in defence of sport, least of all in defence of shooting, which involves more killing than any other field sport, for of all hateful things there is none so loathsome as cruelty. But killing and cruelty are *not* synonymous, else the whole scheme of animated nature stands condemned. What the shooter does is to class certain wild animals useful for food as 'game'; to encourage their multiplication and protect them from

molestation by destroying other wild animals which prey upon them, and by formulating regulations for killing them at specified seasons. He says, in effect: 'You are beautiful or interesting animals, useful to me for food, clothing, or other purposes; it is the inexorable law of nature that you should be killed, but I will take the killing of you into my own hands. I will undertake that you undergo no unnecessary suffering, and, above all, that you are secured from injury during the sacred season of reproduction.'

This is the principle that lies at the base of the ethics of field sports, and it is the sedulous observance of this that gives the sportsman a just claim to be considered merciful. It is apart from, and much higher than, the mere manner of killing prescribed by the code of sport, for the welfare of an animal is not affected by the manner of its sudden death. It is held unsportsmanlike, indeed, to shoot game birds on the ground or on a tree, but that is from consideration for the sportsman, to whose advantage it is to practise dexterity of hand and eye. So the paradox is only apparent to those who do not understand the nature of sport, and the humane consideration which inspires the true sportsman, both for the objects of the chase and for certain animals employed in it.

Take, for example, the ancient sport of falconry. The peregrine preys on grouse and partridges, and, but for the intervention of man, would soon reduce them to very small numbers. Man wants the game for food; protects the birds from indiscriminate slaughter

by their natural foes; trains some of these foes to take some of the game at prescribed seasons, and enjoys a health-giving pastime besides. Grouse and partridges are no losers under this arrangement. The same man who takes delight in tearing the rocketers out of the skies, or artistically dropping scores of driven grouse round his box, will endure tortures on seeing a retriever unmercifully beaten for a blunder, and feel his heart bleed for the sufferings of a cab-horse with navicular disease. Nor will he be content merely to give sympathy, however sincere. He will be foremost in those efforts—which, happily, are characteristic of our civilisation—for protecting beast and bird from unnecessary suffering or wilful abuse. It is not in the sportsman's stable that cruelly tight-bearing reins are permitted, nor in his study that you need look for a lark imprisoned in a tiny cage. One can best realise the effect of sport on the welfare of wild animals by imagining what would have been the present state of things had the Game Laws been abolished, as many earnest and well-meaning persons think they ought to be, and shooting put an end to as a pastime. Game would have ceased to exist, except, perhaps, in the walled parks of a few very rich men. Grouse, the only exclusively British species of bird, don't frequent walled parks, and would have been wiped off the face of the earth; we should be talking of them with the same melancholy interest that invests the dodo and the great auk.

So much from the naturalist's point of view, but the

economic point is even more important. A vast supply of choice food would have been lost. Careful preservation—and, in the case of pheasants, hand-rearing—have resulted in an enormous increase in the winged game of this country, the bulk of which finds its way into the market, greatly to the advantage of the public in general and poulterers in particular.

'Oh, but,' say certain moralists, 'how degrading it is to rear birds for the mere purpose of shooting them down!'

Why, pray? Could the birds be consulted, they would probably prefer a short life and a merry one while it lasts to no life at all. And as for degradation, how many mutton chops do your moralists consume in the course of the year? A large number, I am glad to think, thanks to the skill and industry of farmers, who produce large numbers of sheep. The moralists are not heard to reflect on the degradation of farmers and butchers.

The result of shooting as a field sport has been to retain in this country a number of beautiful and useful birds and beasts which would have been utterly destroyed unless means had been taken to protect them. It has been necessary, in doing so, to kill down other animals not less beautiful, such as martens, polecats, stoats, peregrine falcons, hobbies, harriers, and sparrowhawks. It must be confessed also that some innocent species have been confounded with the guilty. Merlins, kestrels, and owls do very little harm and a great deal of good. Even weasels suffer in reputation

from their likeness to stoats, and, indeed, they are not to be trusted with young leverets. But their chief diet consists of mice, rats, and young rabbits. The intelligent interest in wild things which the pursuit of game wakens in so many minds may be trusted to make the regulations of game-preserving more discriminating in the future than it has been in the past. The harmless night-jar will no longer pay the penalty of his hawk-like mien, for it is well understood what useful work he does in keeping down moths and cockchafers. Men are beginning to take delight in encouraging and studying, rather than slaying, some of our visitors which have become rare—the bittern, the ruff and reeve, and some of the scarcer waterfowl; and we look chiefly to sportsmen to set the fashion. It still is too much the way for one who has shot a strange and beautiful animal to record it boastfully in the local press. The collector is busy at his nefarious trade, and every noodle who wants to pose as an ornithologist writes to the local press to report his senseless outrages on feathered visitors. News comes (1898) of the slaughter of waxwings (*Ampelis garrulus*), from Banff (two), Elgin (one), and Cairngorm (two): evidently a small party, just landed in the inhospitable north-east, has received the usual 'Highland welcome.' It is in the power of sportsmen to discourage this kind of thing, and people will soon learn to be ashamed of such treatment of wanderers if the right example is set them.

February

XI

Winter notes

On one of the preternaturally warm days of the passing winter (1897-8) I witnessed a very pretty and unusual sight. Three golden-eyes, two full-plumaged drakes, and a duck were performing some extraordinary antics on the smooth surface of the lake. The duck paddled rapidly from one to another of her courtiers, holding her head low along the water, as if imploring them not to fight. The drakes puffed themselves out like miniature swans, till they were hardly to be recognised as the sleek, shy creatures they generally are, swam towards each other repeatedly, as if about to engage furiously, and then, at the last moment, stopped short, and each alternately threw back his head till the back of the skull rested among the scapular feathers, the bill pointing perpendicularly upwards. It was a very pretty spectacle; the glossy black of the plumage almost disappeared in the puffed-out white feathers. Often and often as I have watched these birds, I never before saw them behave in like manner. Usually their demeanour errs on the side of common-

place—diving as if their lives depended upon it (as indeed they do), perpetually scratching their heads under the irritation of parasites, from which all aquatic birds suffer so much, and evincing marked aversion to being spied. On this occasion they took no notice of me as I stood in full view upon the lake shore.

It looked like courtship: all the elements were there—the lady and the rivals—but at most it can only have been a rehearsal; harmless flirtation is unknown among birds; when they begin they mean business; the suitor is terribly in earnest, the lady becoming coy but quite wide awake, with practical views about a suitable establishment; but the golden-eye is a late nester, and has never been known to breed in this country. It migrates in spring to northern latitudes, where the female lays her eggs generally in a hollow tree. The scene described above took place more than three months before these birds ought to contemplate matrimony. I should greatly like to ask these gallants whether their intentions were strictly honourable.

Since this little episode we have had experience of a fierce little winter—a sharper after-bite than usual—more, however, in the way of blizzard than of intense frost. Very beautiful some of these days were, as I witnessed them, in Helmsdale, which is the name the Norse invaders of the tenth century gave to that fine valley which the original Gael of Sutherland called Strath Ullie. It was not intensely cold, for the dale retains most of its primeval birchwood, greatly appre-

ciated by blackgame. The old cocks made light of the storm which roared over the heights and drove blinding snow-showers down the strath; they knew the rough weather could not last; and when the sun shone out between the gusts, they began crooning among the birch boughs, alighting at times on the snowclad ground to strut and swagger after their manner when spring draws nigh. But a much more trustworthy harbinger of better things appeared in the strath on one of the bitterest days at the close of February—a solitary peewit, to be joined next day by several companions. Sutherland lies to the north of the winter haunts of the lapwing; the appearance of this bird there marks the approach, as the cuckoo in Cambridgeshire does the presence, of spring. Several parties of northward-bound chaffinches and other small birds also appeared, having set out, in spite of the temporary wintry aspect of things, on their annual journey to far Scandinavia.

Season after season, day after day, the close observer of nature will witness the same incidents, the same traits, repeated by wild creatures; from time to time he will be rewarded by something novel. During the recent bitter after-Yule I happened to notice one such occurrence. Everybody knows how the hen birds of many species will pretend to be cripples in order to lead away an intruder from their young. It is a touching, but threadbare, and therefore not very effective device, but it is always pretty to see the imposture well acted. I was crossing a small flat of

heather to fish a certain salmon pool in the Helmsdale, when a hen grouse fluttered out at my feet, and scrambled away with a deplorably crippled gait. 'A wounded bird,' I remarked to my gillie, well knowing there could be no brood about in February. No sooner were the words spoken than my boot almost went upon an old cock, which flew out of the heather with a brave cackle; immediately the hen pulled herself together, joined her mate, and both were soon out of view in strong flight across the river. This is the first instance I have witnessed of a bird incurring personal risk in order to protect its mate. It will be observed that this devotion was shown by the hen; I am afraid it would never occur to a cock bird to put himself in jeopardy for his spouse's sake. It is true, however, that the whirring rise of a cock pheasant serves as a warning, albeit involuntary, for his wives to lie low in the presence of danger.

Talking of cock pheasants, there is one of their habits for which it is exceedingly difficult to imagine any good reason—namely, that inveterate one of crowing loudly and repeatedly before going to roost, or, rather, *after* going to roost, and before going to sleep. The blackbird does the same; and besides these two I cannot recall any British bird which indulges in this foolish custom. Foolish it surely is, for it must be of some importance to every animal to sleep securely, and that might be best ensured by not announcing the exact position of the sleeping place to all prowling creatures. At all events, nearly all wild animals go to bed in

silence, however much clamour they may make on waking.

To whom, then, is this advertisement addressed by the cock pheasant and the blackbird? It may be assumed that every note of a bird is intended to convey information to its fellows on some subject of importance. Even man, most garrulous of all creatures, rarely indulges in soliloquy, and feels much ashamed when detected in so doing. Certainly, it is exceptional to hear a self-respecting human householder bellowing 'Rule Britannia' or 'I fear no Foe in Shining Armour' as he takes his bedroom candlestick. But this is just what the cock pheasant and the blackbird do at all seasons. You may hear the wise partridge calling at sundown in August; but that is to summon her brood to their bedroom. The cock pheasant sets more store on a single barleycorn than on all the broods of all his many wives, and the blackbird chatters as much at nightfall in midwinter as in May. Dr. Louis Robinson has lately published some exceedingly interesting and suggestive speculations on the hereditary and acquired habits of wild animals; but in his volume—*Wild Traits in Tame Animals*[1]—this problem is not discussed. He does, indeed, analyse the vocal peculiarities of domestic fowl; but these are mostly matutinal. The puzzle about the pheasant and blackbird is that they make a noise precisely when prudence, experience, or instinct should have warned them it were wiser to be silent.

[1] Edinburgh: Blackwood and Sons, 1897.

XII

Just one hundred and seventy years ago a certain clergyman, the Rev. James Granger, preached a sermon which gave mighty offence to his parishioners. Those were days when few people gave serious thought to the sufferings of what we arrogantly call the lower animals; and it was held to be frivolous, impertinent, and altogether derogatory to the dignity of the Church of England that horses and dogs should be mentioned from the pulpit, and cruelty towards them condemned as contrary to Christian mercy. The most plausible excuse put forward for the parson was that he had gone mad. Howbeit, mad or sane, good Parson Granger afterwards published his sermon in the form of a pamphlet, called *An Apology for the Brute Creation, or Abuse of Animals censured,* and thus the first note was sounded in that agitation which has resulted in our own day in the presence on the statute book of some of the most excellent laws ever devised.

Fowls of the Air

Peradventure the thought may enter the mind of a worshipper in some of our fashionable London churches, while the preacher sends a sympathetic thrill through a forest of feather-decked bonnets, that he might venture sometimes to chide the cruelty of fashion, as well as its vanity and selfishness. It seems as if he would be doing his Master's work as thoroughly were he to suspend eloquent elucidation of theological conundrums, in order to devote a spare half hour

to imploring mercy for our fellow-creatures — the birds.

There were times, happily now for ever past in this country, when the Church profited by the ignorance of the people. Mourning relatives believed that the souls of their lost ones might be redeemed from purgatory by the repetition of so many masses, paid for by the dozen, and that the penalty for their own sins might be liquidated by the purchase of indulgences. The Church knows now that sound knowledge is one of the most trustworthy handmaids of devotion. In this matter, then, of mercy to birds, knowledge is the surest remedy to the present practice; for there can be nothing more certain than this, that kind-hearted Englishwomen would never consent to deck themselves with borrowed plumes if they knew the irreparable mischief that is being wrought by the traffic which supplies them. Should any clergyman feel at a loss for a text from which to preach on this subject, let me respectfully refer him to Professor Newton's admirable *Dictionary of Birds*; and therein, under the heading 'Extermination,' the following words:—

'One other cause which threatens the existence of many species of birds, if it has not already produced the extermination of some, is the rage for wearing their feathers that now and again seizes civilised women, who take their ideas of dress from interested milliners of both sexes—persons who having bought a large stock of what are known as "plumes," proceed to make a profit by declaring them to be in fashion. The tender-hearted ladies who buy them little suspect that some of the large supplies required by

the "plume trade" are chiefly got by laying waste the homes of birds that breed gregariously, and that at their very breeding time. . . . No havoc in these islands approaches that which is perpetrated in some other countries, especially it is surmised in India, though there now contrary to law; and the account of the ravages of a party of "bird-plumers" at the breeding stations on the coast of Florida, given by Mr. W. E. D. Scott, who in former years had seen them thronged by a peaceful population, is simply sickening. Did we not know what his feelings were, one might in reading his terrible narrative lose patience with him for not expressing more strongly his detestation of the barbarities he recounts. But his abstention is doubtless attributable to the fact that his narrative appears in a strictly scientific journal, where sentimental expressions would be out of place. All efforts to awaken the conscience of those who tacitly encourage this detestable devastation, and thereby share in its guilt, have hitherto failed, and, unless laws to stop it be not only passed but enforced, it will go on till it ceases for want of victims, which indeed may happen very shortly. Then milliners will doubtless find that artificial feathers can be made even as artificial flowers now are, and there will be a fine opening for the ingenious inventor. The pity is that he does not begin at once.'

Now the excuse for making such a lengthy extract as the above is found in the fact that it also is taken from a strictly scientific work. The evil must indeed be crying that wrings from the learned professor such strong expressions of displeasure.

Of course, when unsanctified man presumes to make observations upon ladies' dress, he must be prepared for the consequences. He will be told that he knows

nothing about it; that he had better mind his own business and look after the beam in his own eye. Certainly I am ready to admit that it would not impart the faintest thrill of pleasure either to myself or, I fancy to any one else, except rude little boys in the street, were I to walk about with a humming-bird on one side of my hat, a golden oriole on the other, and a so-called 'osprey' in the middle. All that I venture to assert is that if ladies knew the realities of the plume trade, they would either discard feathers altogether, or, snapping their fingers at the tyrants of fashion, use ostrich plumes, cut from birds bred for the purpose, and the feathers of those domestic birds, game or wild fowl, which are sold for food. Would that every lady in London would pay a single visit to the East India Docks, and see the millions and millions of bird skins, ransacked from all the fairest places of the earth, to enable fashionable folk, and their imitators, to comply with a senseless decree. It would be an insult to the charms of English women were any one to suggest that their influence can be enhanced by the use of feathers. At the present moment (1897), it seems, feathers, except ostrich plumes and the above-mentioned 'osprey' (of which more presently), are off, and ribbons are on. Will any man be so foolhardy as to assert that, in consequence, he is less liable to lose his head or his heart? Every hue that ever shone on feathered fowl can be imitated in Coventry ribbons. Would it not be better to provide employment for our own working class in legitimate home industry than

to stimulate among South Sea islanders and long-shore loafers the greed of exterminating some of the loveliest creatures on God's earth?

Two instances, one of the ingratitude, the other of the cruelty of milliners' fashions, must suffice to illustrate the urgency of the case.

A few years ago owls' 'plumes' were the rage for ladies' hats. Besides innumerable counterfeits, thousands of the genuine article might be seen flaunting in the streets, evidence of the slaughter that had been wrought among one of the most beneficent families of birds. The nature of these plumes might itself have testified to the usefulness of the original owner—to the thoughtlessness of the borrower—for the structure of an owl's wing coverts is specially adapted to noiseless flight. The importance to the owl of being able to fly without sound lies in his nocturnal habits, and in the keen sense of hearing possessed by his chief prey—rats, mice, and voles. The services rendered to farmers, gardeners, millers, and indeed to all rural householders, by a pair of owls is quite beyond calculation. And how do we reward them? By shooting down this beautiful nocturnal police, savagely tearing out wing-and-tail coverts, fixing them on our feast day hats for a few weeks, and then casting them on the cinder heap.

To man, we are told, was committed the privilege of devising names for all animated nature. He has, with questionable modesty, reserved for his own species the title of *Homo sapiens*—Man the Wise. Sometimes there is forced upon one the reflection that one of two

courses is necessary—either a new classification and renaming of the human species, or the abandonment of certain practices which make the old nomenclature inappropriate. It would be gratifying to our self-respect if, assuming it to be necessary for ladies to display fragments of animated nature in their attire, they should adopt the fashion of wearing the carcases of rats, mice, and other furred marauders on their heads.

So much for Man the Wise; now for an instance of Man the Merciful.

Reference has been made to the 'osprey' plumes so highly prized in bonnet shops. These delicate sprays have quite as much to do with alligators as with ospreys. They are produced by two or three species of heron of fairy-like beauty. To realise their exceeding loveliness let the reader turn to the plates of the Great White Heron (*Ardea alba*) and the little Egret (*Ardea garzetta*) given in Parts xiv. and xv. of Lord Lilford's *Coloured Figures of the Birds of the British Islands*. These are most faithful and life-like representations of these birds in their nuptial dress. At the pairing season long filiform feathers spring from the back and fall, like a bridal veil, over the snowy plumage. That such exquisite creatures should meet with short shrift on the rare occasions when they visit these islands, is only in accordance with our invariable treatment of rare birds. John Ruskin wrote the mournful elegy of the last white egret known to have been killed in England, and told how this 'living cloud rather than a bird, with its frostwork of dead silver,' was

battered to death by a labouring man, and sold to a neighbouring bird stuffer. That is only what we must expect from labouring men as long as people who are not under the necessity of labouring remain ignorantly indifferent. Surely ignorance is the only cause of this indifference. Surely no lady would buy one of these egret plumes, dyed, as they often are, red, blue, or even black, if she remembered that they were once the bridal dress of an innocent bird; that in order to supply them, peaceful colonies must be invaded and ruthlessly violated at the most sacred season of the year; and that this heartless trade must soon end in the total extermination of white herons.

To what purpose, some hard-working philanthropist may be heard saying, is all this outcry about the sufferings of birds, when such clamant need exists for the relief of human want and misery? Will it not be time enough to take up the cause of the first when that of the last has been finally and successfully redressed? That might be so if man were neutral in his dealings with these wild things; if, instead of exerting himself to destroy and torment them, he left them undisturbed. This is no appeal for mission work among fowls, but for the conversion of human beings from inhuman practices. The Society for the Protection of Birds was originally started for the purpose of discouraging the 'plume' trade, by informing women about its true nature; it has lately extended its scope so as to grapple with needless and wanton destruction of birds. It does not clamour for legislation; there is plenty of that

already, and to spare. It aims at the diffusion of sound information on bird life and habits, and at shaming people out of barbarous treatment of harmless, generally beautiful, and often useful species. Any one may become a member for the trifling annual subscription of half-a-crown, or a life member by the single payment of a guinea.[1] The pamphlets and leaflets already published by the Society exhibit, in addition to zeal, the indispensable quality of discretion. No attempt is made, as some good folks think necessary, to discourage field sports. Many of its members would have no part in it if the programme included putting an end to shooting birds for sport. No intelligent observer of human nature can have remained blind to this apparent paradox, that among no class of persons—no! not even among the fair sex—are animals more sure of humane treatment than at the hands of sportsmen.

Besides, as has been observed above—but for the game-laws, but for the preservation of wild birds for sport, there would not be in our land at this day one in ten thousand of the grouse, pheasants, and partridges which adorn it. The red grouse is the only exclusively British bird in the whole list. Collectors would have swarmed from all parts of the world, and long ere this grouse would have ceased to exist but for the protection of the game-laws. Let us even descend so low as pigeon-shooting from traps. It is not, indeed, a field sport, it is perhaps a stretch of courtesy to call it sport of any sort, and I cannot bear to witness it. Never-

[1] The Secretary is Mrs. F. E. Lemon, 3 Hanover Square, W.

theless, even pigeon-shooting has its bright side for the victims. Hundreds of thousands of pigeons are bred annually for the sole purpose of supplying pigeon matches, which would never have existence at all if pigeon-shooting were prohibited. During their brief lives they are well tended and well fed; they have no knowledge of the fate in store for them; and it may be left to subtler intellects than mine to decide whether 'Tis better to be hatched and shot than never to be hatched at all.'

With all this vexed question the Society for the Protection of Birds does not concern itself. Some of its members, indeed, who have travelled in countries where all wild birds are scrupulously and spontaneously protected by the natives, may feel more in sympathy with the Mohammedan, who, from superstitious dread of injuring the spirit of one of his ancestors, refrains from taking the life of any wild bird, than they feel with the idle English 'milor' who ascends the Nile, not content to enjoy the glorious sunshine or to explore the relics of the most ancient civilisation in the world, but intent upon carrying death and wounds among the harmless waterfowl that crowd the river banks.

At the beginning of the great frost in February 1895 I was fishing in Thurso. A brace of beautiful wild swans came up the river and offered to light on the pool beside which I was standing, but on seeing me they flew on. My gillie said he thought they would settle at a place higher up the river, and urged me to get a gun, for I would get a fine chance at them. I

turned and said, 'Do you know that if I were to get twenty guineas for every swan I bagged, I never would fire at one of them?' He looked half amused, half incredulous, but many sportsmen will understand my feelings. I don't want to make myself out better than I am. I was bred a sportsman, and though I shoot no longer, I would be ashamed to compound for sins I am inclined for (fishing, for instance) by damning those I have no mind for; and the Society for the Protection of Birds have done well in refraining from interference with legitimate sport.

Of what the law can do, a great deal—perhaps all that can be done—has been done in this country. The more defenceless species have profited by the low estate to which game preservation has reduced birds of prey. Song birds and other small kinds were never probably so numerous as at the present time. But several birds are still killed as 'vermin,' which it is the duty of the Society to make known in their true character. The kestrel dies because he is a hawk (to speak more strictly, a falcon), but his chief prey is mice and beetles. Owls have long enjoyed evil repute with gamekeepers, because for every five hundred mice and rats he catches, an owl will pick up a young pheasant or partridge, of which neither, by the bye, has any business to be abroad at night. Then there is another bird which has suffered grievously by misnomer, being called in the vulgar tongue a fern-owl, night-hawk, or goat-sucker. But seeing that he is a relative of the swallows, living honestly by catching cockchafers and moths, it

is kinder to give him his fourth popular name of night-jar. Of all the birds of the heath and brake, none is more absolutely innocuous, none more fascinating than this one, yet hundreds are slain every year because foolish persons believe they hurt game or suck the milk of cattle!

So great has been the increase of certain small birds in cultivated districts, that it is sometimes necessary to apply a check in place of the natural one that has been removed. But, for pity's sake, let it be applied in the form of sudden death, and not imprisonment. The bird-catcher's trade is full of untold horrors, not less repulsive than those of the plume trade. Captivity is bitter to every living creature; it must be doubly bitter when it involves the deprivation of a faculty distinguishing birds from all other warm-blooded animals except bats—a faculty, too, which has been the type of freedom in all ages, and which man has applied all his ingenuity to acquire, without success.

It is, of course, true that those who cultivate a craze for caged birds are not intentionally cruel. They lavish every kind of attention, wise and unwise, on their pets. It is true, too, that abundant warmth and food, combined with little exercise, soon tend in some species to dull the prisoner's craving for liberty, and may even cast a torpor over the seasonal impulse to migrate. But even if it were a pleasant thought that a cage-bird's life is only rendered endurable by the effect of overfeeding on its natural faculties, a vast amount of suffering and of lingering death is brought

upon the fowls of the air by the preliminary stages of the bird-catcher's craft.

Let me return, in conclusion, to Caithness, whither I have dragged the reader once already. There is no bird more typical of those northern wastes than the pretty snow-bunting. There are many mammals and birds which don white raiment in winter to match the surrounding pallor, but the snow-bunting alone, I think, among all birds, assumes a whiter plumage in summer than in winter. The reason seems obvious that, whereas it resorts in winter to temperate climes, where a piebald coat will serve, it goes far north to breed on snowy uplands, where white is essential to concealment about the nest.

XIIa

Rabbit-proof plants

In the first series of these irresponsible papers I discoursed upon the discrimination shown by various animals in their choice of food, and furnished a list of the shrubs and herbs which long and bitter experience had proved to be immune from rabbits. Exception was taken to some of these by certain critics, who pronounced my list too liberal, and averred either that I had spoken unadvisedly, or that the malice of *their* rabbits was of a more atrocious grain than that of mine. Well, all I can say is this, that rabbits do greatly abound in the woods wherein I have exposed to their attacks all the plants named in my list, and that these have not only survived, but flourished. It is quite true that some of these shrubs, when first planted out, are liable to be gnawed, out of wantonness, curiosity, or sheer

'cussedness,' and it is well to give them the protection of wire for the first season or two, after which they may be considered safe. It is also true that some herbaceous plants, such as the Japanese day-lily (*Hemerocallis*), are apt to be tasted when first pushing a succulent growth in spring; but when they have become established, little harm results from this, and when the clump has grown strong and has assimilated with its surroundings—lost its newly-planted look—rabbits pay it no further attention.

So many people have expressed their gratitude for the publication of the list in the first series, that it has occurred to me that it might be useful to reprint it as an appendix to the present volume, with certain additions which subsequent experience has confirmed. These additions are, among shrubs, *Choysia ternata*, *Clematis* (all species), *Olearia hassti*, *Cassinia* (*Diplopappus*) *fulvida*, *Berberis* (all species), *Rubus* (including the fine American species); and among herbs, *Spiræa* (all species), bamboos (many, probably all, species), day-lilies, lily of the valley, New Zealand flax, etc.

XIII

A mild Winter

The present winter (1899), remarkably mild up to now, has confirmed the impression which must often have suggested itself to observers of wild animals, namely, that their existence is devoted to two main objects—the supply of food and the duty of reproduction. All through January there has been no lack of food; not even the film of ice has crusted the pools; the grass has grown without a check, and

every still corner is dancing with winged insects. A few days since the garden bees were busy in the snowdrop bells, and over a bed of wallflower there was a sound of summer wings. The question of commissariat therefore causes no anxiety, and the minds of beast and bird are turning lightly and prematurely to thoughts of love. The blackbirds, for instance, are behaving in quite a delirious way; the hen birds looking out for felicitous nesting-places, and some of the males in full song. This is very exceptional at this season. Thrushes —an odd one here and there—are always ready to tune up after a week of warm weather, but the merle is much less easily beguiled into amatory expression. Never till this year did I hear the song of a blackbird on January 2nd; since that day, when he was decidedly *staccato*, he has practised incessantly, and now accomplishes the whole vernal operetta, while others near him are also taking up the strain.

Evidently they have been thrown out of their reckoning. The blackbird's song is purely hymeneal; the prudent *père de famille* exhorts his wife betimes: 'Look here, this has been a season of plenty; there are very few families in mourning, and it will be difficult to get a house for the season unless you set about it soon. Just you look about you, will you? and I 'll sit and sing while you are busy.' There is some excuse for this confusion of dates; to-day (February 3rd) I saw hollyhocks, marigolds, and scarlet geranium in bloom in the open.

Many of the time-honoured prognostications of a hard winter have been discredited this year. There was a

heavy crop of hips and haws; holly berries were unusually abundant, and as yet there is little diminution in the store. Perhaps this provender may come in handy still. There is a very large holly tree close—some people think too close—to my window, which bears a very large crop each year. Its branches are still thickly set with scarlet fruit, although wood-pigeons (there were six in it one morning lately) and pheasants resort to it 'when so dispoged.' But there have been none of the usual visits of redwings; while blackbirds and thrushes despise it altogether, as earthworms are to be had in abundance. A pair of fine mistletoe thrushes kept me company as long as an old spindle bush had any rosy berries left, but they finished these a fortnight ago, and have gone afield for something more succulent than holly berries.

XIV

The Curlew Sandpiper

In the present painfully congested state of knowledge, it amounts almost to a calamity when a fresh discovery dispels some venerable mystery. Hence it is with mingled feelings that one learns that the egg of the curlew sandpiper has at last been found. Hitherto the knot and the curlew sandpiper, two diminutive and nearly related members of the sub-family of Snipes, and both well known on our coasts as spring and autumn passengers, have maintained the distinction of being the only British birds which have succeeded in defying the curiosity of egg-collectors. Not a single egg of either species has ever been found

till, last year (1897), Mr. Popham brought back from the Yenesei a clutch of eggs of the curlew sandpiper, together with the parent birds. Nestlings of the knot have been found many years ago in Melville Island, and lately in Grinnell Land, so it seems merely a question of time when this little traveller also must yield up its domestic secrets.

XV

Fuddling Chub

Owners of trout-streams, especially those of Hertfordshire, are often driven to the verge of despair by the irrepressible increase of coarse fish. Dace and chub are almost as inimical to the welfare and abundance of trout as is the pirate pike. Their hostility is not overt, but they consume a vast amount of good food which ought to descend into nobler gullets, and no doubt they devour a quantity of trout spawn. Pike may be snared and shot; to keep them within limits is merely a question of diligence; but no amount of diligence will rid a stream of dace and chub. A certain number may be taken in nets; but where willows and alders abound to the advantage of the stream, effective netting cannot be carried out.

Now dace and chub are chiefly known in the southern and Midland counties; but it is in the north that wise men have devised an insidious way of ridding themselves of the pest. Chub, locally known as 'skellies,' exist naturally in great quantities in that noble stream the Cumberland Eden, and here salmon and trout anglers avail themselves of the process known by the

delightful title of 'fuddling chub.' The very term has a fascination in it, and I commend the plan to the attention of south-country conservators as well worthy of a trial at the present season. The recipe is as follows:—Boil 1½ lb. of rice until rather soft (not so soft as for the table), let it cool, then add 1½ lb. of flour, one ounce of *Cocculus Indicus*, and crumble up with the whole a threepenny loaf of stale bread. Mix all together with the hands, and throw into the haunts of chub in pieces about the size of a pea. The chub eat it, presently float on the top incapably drunk, and may be ladled out. It is said that trout do not take it, but the experiment should be carried out cautiously at first.

XVI

From a Highland Strath

The real tooth of winter (1898) has come upon us with the lengthening days; the warmth of Yuletide has passed away, and a terrible north wind drives down our Highland strath. The sky, yesterday so blue, is uniformly grey, and the snow-flakes fly thickly. Far up on the bosom of Beinn Uarie one can discern, in the clearer intervals, the great corrie, where the drifts seethe and whirl; last week you might have basked there in the sun, looking forth upon the wide firth; to-day it would be death to venture within that awful chamber of snow.

On the smooth holm beside the river stands a substantial farmhouse, where dwells one of those great sheep-farmers who have had to bear so much abuse for displacing the crofters. A young woman comes out,

and steps briskly over the sward, heeding the bitter blast as little as if it were a zephyr of the Ægean. A harmony in rose and silver-grey. Roses are in her cheeks—such roses as only youth at its best can grow; grey her dress—a thick, short skirt of homespun over good serviceable boots—a short cloak, held close to the throat with one ungloved, well-shaped hand—and a grey Tam-o'-Shanter pulled well down over pale golden hair. There is a flash of scarlet somewhere, not to be defined—is it handkerchief, or glimpse of petticoat, or corner of ribbon?—a spark of vivid colour rendering the rest more delicate. A prettier picture than this lass marching through the storm you would not find in all the streets and parks of London. One of Mr. Black's braves must have come in captive on the spot.

Will our dear, fine ladies not read a moral therein? Not, indeed, that they should wear Tam-o'-Shanters at *matinées*, or forswear gloves in populous places, but the old, threadbare precept—*simplex munditiis*. What return does anybody, except the milliners, derive from the vast outlay in fine feathers and 'picture' hats? It is shining eyes and hair, and shapely limbs and *je ne scais quoi*—not 'ospreys' and humming-birds and aniline dyes—that does for the enemy. But the enemy is done for daily, in spite of these detriments to fascination (for such, in most cases, they really are). The plea here is not for him, but on behalf of innumerable beautiful and harmless creatures, who suffer by reason of extravagant adornment of ladies' hats.

Perhaps I have said enough upon this matter already, but since the notes on pp. 37-44 were penned, the question has entered upon a new phase. The Society for the Protection of Birds has been so busy making known by lectures and leaflets the truly abominable proceeding necessary to keep up the supply of 'ospreys,' that the demand has been affected. Ladies having refused to decorate themselves with plumes so basely borrowed, *Monsieur le plumassier* has been compelled to resort to artifice. Hitherto he would have been righteously indignant had anybody hinted that his 'ospreys' were not genuine; *now* he protests that they are artificial. Many ladies have bought them on this assurance, and it is time to inform them that they are being deceived. So greedily is the harvest being reaped, so abundant are the consignments from Virginia and India, that it would not pay to fabricate white heron plume. Let ladies be persuaded, therefore, to decline to help off the trade with its ill-gotten stock, and that a cock's plume or a bunch of ribbons—even a Tam-o'-Shanter—will exact quite as much homage from the other sex as the rarest plumes from *outre-mer*.

The traffic in 'ospreys' is only one of many other branches which keeps collectors busy. Birds of Paradise, humming-birds, chatterers, all the living jewellery of the tropics, is being depleted to satisfy this truly savage fashion. A remarkable tirade has been uttered recently by the Jesuit Victor Cathrein against the growing tenderness of modern Christians

towards the lower animals. This he denounces as un-Christianlike and demoralising, on the theological ground that these creatures have no rights, and that man is as free to tear them in pieces or destroy them as he is to ruin his own clothes or pull a peony to pieces. Happily, matters have gone too far for any such anthropocentric doctrine to find any echo in Britain, through it is true that Christians have a good deal still to learn from Mahommedans in this respect, as anybody may observe by comparing street scenes in Naples with those in Constantinople. English ladies of fashion have it much in their power to promote the humane treatment of their feathered fellow-creatures; nor will they fail to do so when they understand how to do it, without the slightest sacrifice of grace or splendour in attire—without even adopting the rule of *simplex munditiis*.

XVII

The Passing of Winter

Seldom is there a night so still that he who is abroad or watching from an open window is not conscious of an indefinable stir, it may be among the treetops or upon the beach, among the summer meadows or on the snowy hillside. Not the wind, albeit that often gives a momentary sigh, nor the going of beast and bird, nor the movement of men; it is something apart from these, intangible, like the change upon a sleeping child before it wakes. It is as if the spiritual sentries which we are fond to imagine

keeping ward over the slumbering world were giving place to the day reliefs before the sounding of the grand reveille.

Be it this, or be it some other, nobody who is in tune with nature will be insensible thereof, nor fail to recognise in the calendar a counterpart to this daily revival. It comes in the thrill running through the land ere it wakes from the sleep of winter. Our seasons are so variable that there is sometimes plant growth in every month. The earth carried into the winter that is just passing away (1899-1900) so much of the heat imparted by a gracious summer, that the heliotrope—of all common bedding plants most sensitive to cold—was flowering in open borders on the west coast of Scotland as late as the 8th of December. Then the frost got in its tooth for a short spell, yet the first snowdrop flowered on the 28th of that month. Still, even the singing of credulous thrushes did not delude one into the belief that winter was past. It was a full month later when an indescribable something in the morning air made one aware that a change had taken effect; that winter was no longer master; that steam was getting up, and the business of the year was afoot. Since that day there has been a set-back; furious snow-storms and nights of cruel frost have interrupted the business; but it has been proceeding all the same, and the dead months are behind us.

Even here, seven hundred miles north of London, about as far north as you can get without falling over the edge of our little island, with the glen wrapped in

snow and the river bound in arctic fetters, save here and there a swifter reach running dark amid the surrounding whiteness, one feels assured that 'joy cometh in the morning.' It is not merely experience of February—*Sprökelmaund*, as the Dutch call it, the breaking-up month—that assures one of this. Depend upon it, the earth is alive and watchful; the very alder buds have blushed a conscious purple; although not a green leaf will appear for ten weeks to come, the invisible seamstresses are preparing for the gala month of June.

Yet, of a surety, a stranger in this northern land—above all, a stranger fatuously bent upon salmon-fishing—might be tempted to curse his own folly, or his friend's deceitful assurance, which induced him to incur exile at such a season from the inglorious comforts of his club. Fish! How can he fish in a frozen river? 'Maybe there will be a change coming before many days,' observes the consolatory gillie. A change! Good need for it! Look at the deer, low on the hill above the lodge, crouching away from the fierce nor'easter, densely charged with stinging snow-needles. They seem to have made up their minds for the worst, and run risk of winding the abhorred odour of man rather than endure the unmitigated misery on the tops. It is not like the same world which, two nights ago, he left in London. There, the elm tops were swaying in a wet sou'wester, the pavements flowed with mire, and an ordinary overcoat was oppressive. Here the very breath freezes on the beard, and woe to the unwary who avails

himself not of the thickest woollen webs. Ungrateful mortal! Know you not that no pleasures in life are so exquisite as those which come of contrast? Think of the murky capital you have left behind, but think of it in gratitude for the lot which has landed you in a county where you could not find a teaspoonful of mud were you offered its weight in diamonds.

Well, the stranger has come to fish, and has nothing else to do, unless he sit down and write to the papers about the shortcomings and long delays of the Highland Railway; so he had best do as I did—yield to the sanguine gillie's persuasion, and put a fly over what open water may be found. We had spent several hours in a snowdrift at Dalwhinnie, therefore it was late in the afternoon of the third day from leaving Euston that I reached my sub-arctic quarters. Just below the lodge a long, swift sweep of the Helmsdale was free from ice, save for a few feet on each side—a famous cast for spring salmon; and about 4 P.M. I began hurling a huge 'Goldsmith,' a flamboyant confection of yellow feathers, scarlet wool, and silver tinsel, across the leaden-coloured surface of the flood. It was bitterly, bitterly cold; the line froze to the rings; the fly—good save us! 'twas as like a young crocodile as any winged insect—the fly, I say, had to be sucked clear of ice from time to time; surely no fish can be astir in such a season. Ha! there is one, anyhow, as may be seen by the most incredulous in a heavy swirl behind the lure. He would not come again, so we both voted him a kelt, and went on. Twenty yards lower I fastened in something, a

manifest kelt, which was expiscated, and duly returned unhurt.

Well, if kelts are on the move, clean fish may be so also; and I fished on in momentary expectation, having, from long experience, faith in the seasonal, if irrational, impulse which drives salmon from the abundant storehouse of the ocean into the lean quarters of a Highland torrent, no matter how inclement may be the time. It came at last—a good solid 'rug' under water, just where the current narrowed between two opposing ice-floes, and a few minutes of vigorous exercise set the blood circulating in fine style. There were moments of exceeding apprehension, when the fish evinced a decided hankering for shelter under the ice at my feet; but eighteen feet of greenheart availed to hold him clear, and in five minutes I was enjoying one of the fairest sights upon which an angler's eyes may feast themselves—a new-run salmon reposing upon a wreath of stainless snow.

XVIII

Spring Salmon

The change in men and manners noted by one crossing the Moray Firth is not less remarkable than that in the habits and behaviour of birds which distinguishes the districts north and south of that stately fiord. The Saxon element predominates in the counties bordering upon Aberdeen; but cross the Firth, pass into the dreary tableland of Caithness, and you encounter unmistakable Scandinavian traits in

On Loch Hope, Caithness.

the population. Now Norsemen and Saxons may be traced to a common Germanic stock, but the first seem to have monopolised William of Wykeham's adage, 'Manners makyth man,' and succeed in making intercourse exceedingly agreeable all round. Norse blood, with an infusion of Celtic, produces a race probably of superior social amenity to any other. This adds immensely to the zest of field-sports in penultimate Thule, especially to that of early salmon fishing, which involves the spending of long hours by the water-side in solitude, save for the presence of the attendant gillie.

Now, there be gillies and gillies. An Irishman in that capacity is sure to be amusing, a Highlander generally sympathetic; both perhaps succeed in concealing their total disregard of veracity. As for the Lowland Scot, you may place implicit reliance on the few observations he emits, but his incorrigible dourness has a depressing effect. It is the Norse Highlander of Caithness who alone fulfils the part to perfection, putting himself in harmony with all his employer's moods, ready to discuss politics, agriculture, literature, or what not, yet thoroughly sound and true in all pertaining to his craft.

Great is the joy to stand with such a man on the familiar marge; the well-known landscape lies around —weather-wan grass—brown, stunted heather—dark, blotchy ploughed land stretching away without a tree, hardly a superfluous bush to break the monotony of it, to the low upland horizon of that purple blue peculiar

to northern atmosphere. It has been a winter mild almost beyond precedent. There has been no ice, fish have been running up for weeks, and the river flows on as of yore, full of promise and full of mystery—the fundamental charm of angling. The current ripples under the cliff on the far side with exactly the same eddies as it did twelve months ago, when your fly, passing the point of yonder sunken rock, suddenly stopped, the line tightened, the greenheart bent, the reel screeched, and, ten minutes later, the first clean fish of 1897 drew the index of the steelyard to an honest twelve pounds.

We don't waste much time at this season in discussing the merits of different flies. A Highlander's imagination runs riot in change; a Lowlander is obstinate in preference for some particular pattern, and turns sulky if you hesitate to conform exactly to what he prescribes; but a Norseman is sensible, all he stipulates for is *size*; provided the lure be big enough to stir fish lying in a snow-fed stream, he sets no store by nice shades of colour or variety of material. On this occasion a new device from the Dee called the 'Mar Lodge'—an elegant confection of black silk, silver tinsel, and jungle-fowl hackles—is dispatched to its mission on the waters. Again and again it traverses the well-remembered spot at the rock point; there is nobody at home there to-day. Twenty yards lower, where the channel shoals and broadens, comes that indescribable elastic 'draw' which tells of a fish firmly hooked under water; the exquisite spasm traverses line and rod, making all the fisherman's

ganglia tingle; but immediately there follows a figure-of-eight movement, unmistakable token of the unclean. Hope is restored for a moment by a spirited dash up stream, but that ends by the fish showing on the surface and revealing the white body and dark fins which distinguish the unwelcome kelt. Lose no time over him; get hold of the line, James (fancy this heir of Vikings answering to commonplace 'James!'—he ought to be Magnus or Olaf), and draw the beast ashore. Ah! see how he has chewed up the 'Mar Lodge'; serve me right for displaying fancy articles at 3s. 6d. each when kelts are about.

Operations are resumed with a fly of tougher materials, fully three inches long, with a body of indestructible pig's wool, dyed, like the Northumbrian miner's handkerchief—'Nane o' yer gaudy collors; just gie me plain reed and yalley!'—and lapped with stout silver twist instead of tinsel. Kelts are on the job to-day, and keep one's nerves alert; but never a 'sea-fish' makes a sign till the light is beginning to fail. It is at Hell Pool—famed for holding fish, but of indifferent repute as a good place for raising them, by reason of its great depth—that we meet him. The river here, rushing full against an opposing crag, wheels with mighty tumult to the right. It is a bad place to fish, for the wind (it is always blowing in Caithness) flies in violent gusts now here, now there—now behind, now before. Far out of reach, just where there are a few square yards of quiet water at the tail of the pool, a fish, unmistakably clean, makes a head-and-tail rise.

'That one will take if you can cover him,' quoth the watchful James.

Ay, but how to cover him? he is full forty yards away, and the cliff bars all nearer approach. The only plan is to make a wide circuit round the cliff through the moor; which we proceed to do in feverish haste, for it will be dark in half an hour. Then there is a scramble down a kind of watercourse—a mere scar in the precipice—transacted not without abrasion and the admission of cold water to very sensitive parts of the person; and at last we stand together on a strip of rock-strewn turf beside the river.

Loudly thumps the fisher's heart against his ribs as the line extends over the oily surface; it is a moment of suspense verging on the painful. The current is strong, and brings the fly round quick, but not too quick for a quicker pair of eyes below. There is a gleam—a snatch—then begins the old game of pulley-hauley, in which treble gut puts the odds heavily on the landward side. No kelt this, but a salmon fresh from the tide, which in due time lies high and dry in the twilight—one of the most perfectly beautiful of all living creatures.

As we stand at the opening of a new season, I don't mind giving a worthy Scandinavian the benefit of an advertisement by quoting *verbatim* a handbill which has come to me.

LOOK HER! SALMON!

The honourable travellers are averted to, that undersigned, who lives in Fjorde pr. Vol. den Romsdals county, Norway, short or long time, hires out a good Salmonriver. Good lodging finds.

DIDRIK MAAN,
Shopkeeper.

March

XIX

The Yew

We live in an age of shattered illusions: one by one our most cherished traditions are proved incontestably to be irreconcilable with common sense. It was but last year (1897) that an impious Scot relegated Bruce's spider to the realm of myth, and now Dr. Lowe comes cranking in[1] to show that our yew trees, for which the epithet 'immemorial' seems to have been specially devised, can lay no claim to extraordinary antiquity. It is not easy to see how, as a faithful witness, he could have avoided doing so, seeing that he has undertaken, and right well discharged, the task of recording all the notable yews in these islands. The slow growth of the yew, its immutable mantle of sombre green, its frequent presence in God's acre, are all features rendering this tree a pliant accomplice with tradition, which is ever ready to invest familiar objects with marvellous attributes. The old fond beliefs will hardly be shaken by the

[1] *The Yew Trees of Great Britain and Ireland.* By John Lowe, M.D. London: Macmillan and Co.

conscientious verdict of Dr. Lowe; but botanists and cold men of science cannot but be grateful to him for setting out so clearly the evidence on which it is founded. He starts with an examination of De Candolle's assumption that the age of a yew may be reckoned accurately by counting the concentric rings of growth in the trunk, and shows how fallacious this is, especially in a tree of the peculiar habit of the yew, and so frequently pollarded. He next examines the few historical records from which the exact age of individual trees can be ascertained, and is unable to find one which shows an age greater than two hundred years. This is a sorry surrender of the computation which made out the Fortingall tree, in Perthshire, with its enormous circumference of fifty-four feet, to be from 2500 to 2700 years old, or the Clontarf yew to be the one under which Brian Boruibh breathed his last in 1014. Tradition is positive that the yews now in Kinglye Bottom, near Chichester, were there when the Norsemen landed in Sussex in the ninth and tenth centuries. 'Had it been said,' observes Dr. Lowe drily, 'that "yews were there," the statement would have been accurate; but that "the yews," meaning those still existing, were then in being is too large a demand on our credulity, as there is no tree at that place which exceeds fifteen feet four inches in girth, or possibly about five hundred years of age.'

Yews were of national importance when, archers being the most important part of English infantry, it was enacted by a statute of Edward IV. that 'every English-

man, and every Irishman dwelling with Englishmen, should have a bow of his own height, made either of yew, wych-hazel, ash, or anulone laburnum.' But yew was the best, and in time the demand grew beyond the supply.

There is a craze just now for books on country matters, and in consequence a vast amount of twaddle is published annually. But Dr. Lowe has produced something of sterling merit; his statistics are so carefully compiled, and his descriptions so thoughtfully prepared, that his work will remain probably for generations the chief authority on the subject.

But why in the world should Dr. Lowe have consulted Dr. Johnson on the etymology of yew? It has led him into the blunder of connecting the name with 'ivy,' from which it is quite distinct. Moreover, the Irish for yew cannot be written either *whar* or *jubar*, the Celtic alphabet being destitute of both *w* and *j*. It is *iubhar*, pronounced 'ewer' or 'yure.'

XX

Flowerless Plants

Of all the multitude of provinces into which natural science, as it was known to Bacon, has been split, each with its separate yet interdependent army of workers, there is none, perhaps, with less external attraction for the amateur than the study of cryptogams. Plants destitute of flowers and leaves must seem wanting in the essential charm of the vegetable kingdom. Yet there is no subdivision of

knowledge in which original discovery is so likely as that of cryptogamy, wherein Dr. Cooke has long ago established his renown, and he has now provided a handy guide-book to one of the counties of that province.

This is well, because cryptogamy — the study of ferns, mosses, lichens, algæ, and fungi—has already far outstripped the scope of a single handbook. The marvellous multitude and variety of these humble forms of organic life is well illustrated by the fact that Dr. Cooke's new treatise on mycology,[1] dealing exclusively with fungi, introduces the student to a group of vegetables already classified into no fewer than 40,000 species! Nor is this group one that civilised man can afford to neglect. Many forms of disease, both in animals and food plants, are now known to be the result of fungus flourishing on and destroying living organisms. For instance, if any remedy can be found for the destructive salmon disease, it will arise from more light on the life history of the aquatic fungus *Saprolegnia*. The rusts and smuts that attack cereal crops used to be much more formidable before their true nature as fungi was understood; and the steady advance in bacteriological research is full of promise of a more intelligent system of dealing with human ailments, now that many are known, and more are suspected, to be caused by minute fungoid organisms.

On the other hand, fuller knowledge will teach us

[1] *Introduction to the Study of Fungi.* By M. C. Cooke, LL.D. London: A. and C. Black.

how to multiply and cultivate those species which have commercial or esculent value. Everybody would eat truffles if he had the chance, but the supply is limited by ignorance of a sure method of propagation. This ignorance can only be dispelled by scientific study; and it is worth while to make the effort, because, so prolific is this excellent little fungus by nature, that the inhabitants of Apt, relying on haphazard and traditional industry, send four thousand pounds weekly to market during the season, and about thirty tons are collected annually in the department of Vaucluse. Truffle-hunting was formally a profitable industry in the southern counties of England, but it has well nigh expired, as the French species possesses a finer flavour. But has any one tried to introduce the French truffle to English soil?

To those who adopt scientific research as a pastime, the study of fungi may be commended as one which holds out more hope of original discovery than most branches of science. Dr. Cooke is too modest to repeat a story about himself, but it is worth telling as an illustration of the interest arising out of his chosen pursuit. In Dr. Cooke's house there was a wall, which, in spite of all repairs, remained persistently damp. It was papered and varnished, but paper and varnish were destroyed by a growth of mould. Had Dr. Cooke been an ordinary mortal, such as a collector of snuffer-trays or old postage-stamps, he would have told his housemaid to scrub the mould off as fast as it grew. But Dr. Cooke is not an ordinary mortal—he is a mycologist; so he carefully protected the mould patches

and watched them through the microscope for many months. And he had his reward; for upon this wall, within a few feet of his fireside, he identified four species of fungi hitherto unknown to science, one of which constituted a new genus. It must, indeed, be admitted that it is not every gentleman whose womankind would smile on this form of chamber botany.

XXI

Few people may admit without demur the position I am going to claim for the mole among friends of agriculture; even its warmest advocates have to acknowledge that in discharge of its duties this subterranean policeman occasions a good deal of irritation, both to the farmer and gardener. The farmer is naturally incensed when he finds that a mole has been running up and down under the drills of newly hoed turnips, throwing the young plants out of the ground, apparently in wanton mischief, for the animal does not eat them; the gardener curses the beast that disfigures his well-kept lawns, and perhaps uproots newly planted carnations in his borders or rows of sprouting peas. Agreed—these habits are vexatious; but what is the mole's object in carrying on like this? It is one of the most ravenous animals on the face of—more correctly, *under* the face—of the earth, yet it disdains vegetable food. It disturbs the young turnips and carnations, because they have a peculiar attraction for the destructive wireworm—grub of the cockchafer; it disfigures

The Mole

grass pastures and lawns chiefly in pursuit of the leather grub—the 'pout' of the Scottish farmer—which is the larva of the common—too common daddy-long-legs.

A few summers ago I was staying with a farmer in Somersetshire, and I was amazed by the hordes of daddy-long-legs which swarmed over his pastures. I never saw this insect in anything like similar numbers; they gave the fields the appearance of being covered with a film of mist. When I reflected that every one of these millions had existed for three years underground as a leather grub, devouring the roots of the sweetest grasses, and impoverishing the pasture, I formed a faint idea of the mischief which their presence represented, and I looked about for traces of their natural enemy, the mole. Not a single mole-cast was to be seen throughout my friend's territory! When I observed to him that it was a pity there were no moles to combat this formidable pest. 'Moles!' quoth he; 'we don't allow any of that vermin. Every parish in the county employs a mole-catcher, and I think we have got rid of them pretty well.'

Now what is the obvious lesson from this? Why, that if you object to mole-casts and mole-runs, a large part of your crop will never reach maturity. Your grass land will 'go back'; your young corn will show large bare patches where the grubs have cut it, and there will be numerous blanks in your turnip drills. Better—far better—to leave the moles to their silent, beneficent duties, and spend the money which you give

to the mole-catcher in spreading the freshly turned mole-cast, thus securing the finest possible top dressing for your pasture. There is the greater necessity for this, because the presence of moles is the only effective check on leather grubs and wireworms, especially on permanent pasture. When the land is in rotation, indeed, rooks, starlings, and, in maritime districts, sea-gulls, follow the plough and devour large numbers of them; but where the land is laid down to grass, these pests enjoy complete immunity from any penalty which the ingenuity of man can devise. Swallows, nightjars, and other birds take toll of the perfect insect, but the life of the perfect insect is brief and harmless; it is during the three years which the larvæ spend underground that they carry on their depredations, summer and winter.

Where the mole has been exterminated, as in some highly cultivated parts of France, the local authorities have to grapple directly with these insect pests, and pay rewards for their destruction. We have the authority of M. Reiset for the statement that, in four years ending in 1870, 867 million perfect cockchafers and 647 millions of their larvæ were destroyed and paid for by the authority of the Seine inférieure.

The European mole has its analogy in every quarter of the globe—all small, soft-furred, burrowing animals, with tiny eyes, and possessed of extraordinary strength in proportion to their size.

Foreign moles, though resembling in habits, and sometimes in appearance, our native *Talpa*, generally

belong to families far removed from the Talpidæ. The North American moles, indeed, the star-nosed (*Condylura*) and shrew moles (*Scalops* and *Scapanus*), are nearly related to the European species, but the curious golden mole of South Africa must be classed among the *Chrysochloridæ*, and there are moles in the eastern Mediterranean region, in Asia and South Africa, belonging to the family of rodents, and therefore related to the beavers, guinea-pigs, rabbits, and rats. In Australasia, where nearly all the placental types have their counterpart in the marsupial or pouched forms of a remote geological age, there has been discovered within quite recent years the pouched mole (*Notoryctes typhlops*), a little creature about six inches long, covered with reddish fur. All these so-called moles exhibit in their organisation a perfect adaptation of structure to the peculiar mode of existence assigned to or adopted by their race.

The geographical distribution of the British or European mole is enormous, extending from England to Japan, from the limits of frozen ground in Russia and Scandinavia to the Mediterranean and the southern aspect of the Himalayas, where it is actually found at an elevation of 10,000 feet. It exists in every county of England and Scotland, but, strange to say, it is altogether absent from Ireland. Firmly convinced though I am of its useful offices to agriculturists, I should hesitate before risking the addition of another to the long list of Irish grievances against Britain by introducing this little quadruped into the Emerald Isle.

Our Anglo-Saxon forefathers were very fanciful in their leechcraft; some of their prescriptions were disgustingly filthy, others were exceedingly cruel, and some were grotesque. It is curious that the mysterious and clandestine habits of the mole did not suggest to them to employ it in medicine more frequently than they did. In fact, this animal only appears once in the principal leech book which has been preserved, namely, in that of Alfric, written by the penman Cild in the tenth century. Here it is recommended to one suffering from 'wamb wark,' *i.e.* bowel complaint, or, perhaps, simple stomach-ache, that he watch till he sees a mole casting up earth, then 'catch him with thy two hands along with his casting up and say thrice: *Remedium facio ad ventris dolorem* (I make this a remedy for my stomach-ache); throw the animal away over thy back; take care thou look not after it,' and the pain will depart. Perhaps the leech wrote this tongue in cheek, well knowing how powerful is the impression made on a patient's mind by an unusual action peremptorily enforced and performed in full.

Of all vertebrate creatures, the mole is probably the most powerful in proportion to his size: so, at least, a certain Welsh mole-catcher assured a friend of mine; who, suspecting that professional zeal might have led this craftsman to form an exaggerated notion of the qualities of his special quarry, asked him how that could be proved. He cited his experience of an interesting but rather ghastly experiment. An able-bodied live mole, harnessed to the corpses of two of

his brethren, dragged them about with ease; two more were added, with little difference in the result. Successive corpses were attached to the load, to the total of eight, until the ninth brought the creature to a standstill. Imagine the prodigious muscular energy enabling an animal to drag eight times its own weight—not on wheels, mark you, but along the ground. It is doubtful if the strongest Clydesdale horse could drag more than a pair of his fellows in size along a road, and an elephant certainly could not do as much. To match the strength of the mole one must go to the insect kingdom.

XXII

A blank day's fishing

Among the points of superiority over other field-sports claimed for angling by the devotees of that ancient craft, is the fact that even a blank day is not wholly devoid of solace. The same may be said of fox-hunting: there is always the 'coffee-house' chatter and other sources of subsidiary recreation—the salutary pleasure of equitation, the opportunity for larking over unnecessary fences, the display of the very finest specimens of horse and hound, and perhaps, if you are in luck, and know how to seize opportunity, a ride home in the gloaming by the off-side of a side-saddle. But of what other sport can it be held that a blank day is other than a depressing disaster—unmitigated by any ray of consolation? Who cares to reflect on a day's deer-stalking

Bargrennan Linn.

London: Edward Arnold, 1905

without a shot, and what could be more doleful than an abortive battue? But with angling—especially salmon angling—it is slightly different. The pursuit of salmon leads a man into the most varied and attractive scenery, because the beauty of every country is invariably concentrated on the banks of its river, and the most dismal land generally reveals some charm by the waterside. It may be even possible to recount the incidents of a blank day's fishing without being tedious; at all events, it is not preposterous to make the attempt.

The night mail set down a fugitive from London at a wayside station in the south-west of Scotland about half-an-hour before sunrise on a March morning. The air was mild as May, the wet streets of the little town were deserted; for what should lead people abroad at that hour if it were not to listen to the orchestra of blackbirds and thrushes, to which every villa garden seemed to contribute a performer? There are those who extol the song of the mavis above that of the merle; no doubt it is more varied, and includes a greater compass of notes; but surely there is nothing in the lavish melody of the thrush to equal the rich flute-like tones of the less voluble blackbird.

But behind and beyond the song of birds, there was a sound in the air of more moment to the fisherman—the low roar of the river, chafing at the 'cauld'—*Anglice*, weir. There is no want of water this spring (1897); unlike the last four seasons, this has been a 'dropping' one; what matter though farmers are getting

fidgety about their seedtime, provided there is plenty of running water to take fish into the upper reaches? It is the time of year when, for some privy reason, salmon begin to leave the tide, and seek the pools where, from immemorial time, they choose to swelter through the summer heats. There are good tidings of them, too; yesterday a gamekeeper killed two springers a dozen miles from the sea. Of a surety business will be done to-day, for the water is in perfect trim for the fly.

The Cree is the scene of operations, which, among other charms, possesses that of being four hundred miles from London. It is formed by the confluence of two streams about eight miles above the tide; the smaller of these, the Cree proper, strained from leagues of barren moss and moor, is dark with the gloom of a brown Cairngorm; the other and larger—the Minnick—poured from lakes stored in the recesses of the southern uplands—is pure and clear as any Hampshire chalk stream. It was in the Minnick that the two fish were caught yesterday, and the 'machine' is ready at eight o'clock to convey to its banks the sportsman, feverishly impatient.

The drive through the still morning air is worth coming all the way from London to enjoy. All round the northern and eastern horizon are piled the summits of that range which, to the indignation of certain of its inhabitants, railway companies advertise nowadays as 'Crockett's Country.' Snow still hangs on the crests and lingers in the corries, and the glens are filled with the far-off sound of falling waters. The road along the

east bank is a veritable switchback—now flinging itself upon the face of a rocky bluff—now falling plump to the level of the river beside which it runs. The morning sun lights the oak copse into golden russet and silver of indescribable delicacy, with delicious verdure of velvet moss; but there is no trace of spring there, except in the tasselled hazel and in the scattered rosettes of wood hyacinth leaves, where will be a cloud of blue blossoms in their season. Among scattered birches by the river many blackcock are congregated, going through the grotesque antics appropriate to the time of courtship. Blackcocks alone—not a grey hen is to be seen, for these only visit their lords at stated hours. The rest of the day is spent by the cocks in strutting, drumming, puffing themselves out ridiculously, nibbling birch buds and young clover in the sown grass, and cooing as amorously as any turtle-dove.

There is plenty to occupy eye and ear till the chosen scene of operations is reached, than which no salmon fisher could desire a more lovely theatre. For more than a mile the river runs a tumultuous course among cliffs and boulders; there is not a yard of still water in the whole of it, but experience has proved the invincible attraction for spring fish possessed by certain lodges in this torrent. Were it not that salmon are notoriously indifferent to their terrestrial surroundings (being as much addicted to the most commonplace resorts, such as the well-known cast in the middle of the town of Galway, as to the most romantic gorges), one would be

tempted to assign the beauty of this part of the river as the secret of the favour shown to it by early fish. The amphitheatre of blue, snow-streaked hills—the brown heath broken with grey crag and tufted with oak, birch, and holly—the solitude—the space—the historic associations (for here were enacted some of the most stirring episodes in the career of Robert the Bruce)—all these so greatly enhance the angler's enjoyment that it is hard to believe, as one must, that they have no attraction for the fish which resort to this beautiful strath.

On this occasion, apparently, they have *not* resorted thither. Over every yard of water in that beat which might hold a salmon, the fly is worked diligently; it is a day whereon, if fish were there, they could not refuse to rise, so perfect are the conditions of water, wind, and sky; not even a kelt shows, for this is no place where kelts may loiter. Sorrowfully it is decided to fall back on a beat in the main river, where, at least, if the sport is not so pretty, it is more sure. The trap is sent for, and a move is made to a certain infallible cast known as Cunninghame's Ford. It is not a ford at all; it gets its name from the ignoble end of a farmer named Cunninghame, who, having indulged too freely in market-day potations, took the wrong road from Newton Stewart, and found himself on the opposite bank of the river from his own house. Full of Dutch courage, he resolved to *make* a ford where ford there was none; he drove his horse into the water and was drowned. For a mile above and below this celebrated

cast the river is like a huge canal, and gives no sport; here, with a breeze, one is pretty sure to see something. There is a lovely ripple to-day, and a good-sized 'Dandy' is sent on its mission with a confident hand. There! at the third cast a good splashing rise and a tight line. Alas! there is also that unmistakable 'figure-of-eight' wriggle which so surely betokens the kelt. A kelt it is; another and another follows, till four have been returned to the wave; but clearly there are no sea fish here to-day.

At length, with aching back and arms, such as come of wielding an eighteen-foot greenheart for eight hours, the angler stands beside the last, and not the worst, cast within his beat. A wide, strong stream pours into a broad swirling pool of the dimensions of a little lake. Just where the current runs into a rippling point is one of the most 'smittle' places for a spring salmon in the whole of the Cree. But to get the fly over that point requires long and difficult wading, for the stream is strong and the bottom very rough. Three times in succession the journey has to be made; for three times, just as the large 'Beryl' comes over the right place, it is seized by a dirty kelt which has to be dragged ashore. A fourth time the fly is taken—hurrah! this is a fish of the right kind; the reel runs merrily as he dashes down into the broad stream. None of your figure-of-eight exercise this time, but the solid weight and powerful digs of a strong salmon. Never let us despair in salmon-fishing; the last hour of daylight—how often has it proved the deadliest and

saved a blank! Such are the ecstatic reflections of the angler as he picks his precarious way ashore; then, standing safely on firm land, he turns to deal severely with his captive. 'Och bubbaboo!' as an Irish fisher would say, 'what's that?' The fish flings itself out of the water, revealing the unlovely proportions of a great kelt, hooked by the outside. Down with the rod; hand-line the brute ashore, and you may be forgiven the use of a short but emphatic monosyllable, provided it has not been employed earlier in this long day of hope deferred.

Well, it has been a blank day, but it has left the sweet memory of mountain and flood, of drifting cloud and sighing breeze, of delicious nerve-tinglings set astir by the pulls of fish which *might* have been clean; and all these are in pleasing contrast to the routine of division bells and committee rooms. Besides, is there not balm in Gilead? Is not this Saturday night, when all netting at the river mouth is suspended till six on Monday morning? If the thirty-six hours of close time do not admit some fish to the angling waters, salmon must be passing scarce on the coast.

What a host of circumstances the salmon angler has to contend with! Monday morning, indeed, dawns upon a river in trim to gratify the most fastidious wight that ever cast a fly, but a deluge of rain is falling, and it is as certain as that the sun, which has just risen, will set about six o'clock, that within three or four hours 'she' will be down in roaring spate. And it so happens; there is only time to fly to half-a-dozen of the best places, haul out some ugly kelts, and—just

reward for all this terrible anxiety—extract one lovely little springer of nine pounds from behind a rocky ledge in the rapids, and then all is over for this day. The flood comes tumbling down, filling the channel from bank to brae; there is nothing for it but to repair to the hostelry of Newton Stewart, and fill the idle hours till the night mail for London is due by recording impressions of delights too pure to be committed to oblivion.

XXIII

When Daffodils begin to peer

'He that hath two cakes of bread,' quoth Mahomet, 'let him sell one of them and buy flowers of narcissus; for bread is but food for the body, but narcissus is nourishment for the soul.' The pundits have endeavoured—with very indifferent success, as some think—to prove that neither the flower by which the Prophet of Islam set much store, nor Homer's *νάρκισσος*, is to be identified with any species of the genus named *Narcissus* by modern botanists. Seeing, however, what slippery things plant names are, how they are shifted from one flower to another in the course of generations (what we know as wallflower was the heart's-ease and *Viola* of early English writers), little weight can be attached to the nomenclature of different periods. Many kinds of what we know as narcissus abound in Asia Minor, conspicuous among all flowers both for beauty and fragrance, and more likely than most others to have delighted both the poet and the prophet.

But Lenten lilies—the glory at this season of our lawns and cool northern pastures—though near of kin to the Asiatic kinds, are connected with the East only by their name. Daffodil, embroidered by Spenser into daffadowndilly, came to us through the old French *asphodile*, from the Greek *ἀσφόδελος*, and here again we are in risk of controversy as to what the asphodel really was. Perhaps in future ages, when the flow of English literature has been dried up, Japanese wiseacres will puzzle their brains over the exact plant meant by the daffodil, which has had such a fascination for English poets from Shakespeare to Keats. Meanwhile it is ours to enjoy it as perhaps the most beautiful of our native wild flowers.

It has other qualities besides beauty to endear it. It 'comes before the swallows dare'; not fastidious about soil or culture (*magna cura non indigent narcissi*, says an early English authority), it only requires to be planted and left at liberty, and it enjoys the constitution of a coltsfoot; for, although the race has its peculiar foe—a fly (*Crioceris narcissi*) of which the maggot makes the bulb its exclusive diet—this only prevails in hot climates and dry soils; in our northern latitudes it is almost unknown. Hence, though in Britain it is probably only a true native of some of the southern and midland counties, the common daffodil (*Narcissus pseudo-narcissus*) has established itself firmly all over the land, as far north as Caithness and as far west as Connemara. Nowhere can it be seen in greater profusion than in Lakeland, where Wordsworth

celebrated its charms. In Westmorland there are literally leagues of it—slender lines of skirmishers by the waysides—clustered companies in green rocky nooks —whole brigades in hanging oak copse.

Only in one respect does the English daffodil fail to rival most others of the family—it is scentless.

It is a true child of the field and the wood, never to be seen in perfection in parterres. Much used for spring decoration of London parks, it shows to disadvantage there, because, owing to annual removal, it has not time to grow into those crowded clumps which send up such splendid wealth of gold near manors and farmhouses. For park ornament, some of the dashing hybrids, such as the ingenuity of florists has produced of late years, are better suited. The best of these quite eclipse the old daffodil in stature and individual magnificence, and the annual show held by the Narcissus committee of the Royal Horticultural Society is one of the most charming entertainments which London affords. Yet, even there, only one flower shakes one's allegiance to the native beauty, and that, on inquiry, turns out to be no foreigner, but a variety of our own daffodil, larger in all its parts, and with the outer divisions of the perianth not yellow, but snowy white (*N. pseudo-narcissus bicolor*).

Most of our native 'worts' were pressed into the service of primitive leechcraft; yet although the name narcissus is formed from the Greek *νάρκη*, a narcotic, an Anglo-Saxon manuscript of the tenth century contains only one mention of the daffodil. The bulbs of

the 'halswort' or narcissus are to be pounded with oil and meal, which, used as a poultice, 'healeth wonderfully the wounds which are produced on man.' Yet this plant must have some potent property of which we wot not, else how comes it that the almost omnivorous rabbit, which disdaineth not, but greatly coveteth the kindred crocus, will not touch the daffodil?

One other native narcissus we may reckon, indigenous to Ireland and southern England, inferior in profusion and beauty to the other, but diffusing a delicious fragrance—'a sweet but stuffing scent,' says the fastidious Parkinson. This is the twin-flowered narcissus or 'primrose peerless' (*N. biflorus*), whereof the perianth is cream-coloured and yellow.

Others there are from foreign climes which adapt themselves bravely to our soil and climate, propagating themselves through woodland and meadow. Of these the nonpareil (*N. incomparabilis*) in almost countless variety, single and double, begins before the common daffodil fades, of which the double form goes by the homely name of 'butter-and-eggs'; the jonquil (a corruption of its specific name *juncifolius*—rush-leaved) and the campernelle (*N. odorus*) rival each other in fragrance; until, latest of all, and perhaps most lovely of all, comes the poet's narcissus or pheasant eye (*N. poeticus*), of spotless white with crimson or scarlet cup. This seems to be the purple narcissus of Dioscorides and Virgil, which modern critics have boggled over, seeing that white and gold, not purple, are the distin-

guishing livery of the family. But the allusion here is to the carmine centre.

By the time, however, that the poet's narcissus is in bloom, there is so much competing wealth of colour and greenery that it scarcely gets its due tribute, and it is the daffodil of March—the true Lenten lily—that Keats has wedded with a praise long since threadbare:—

> A thing of beauty is a joy for ever,
> . . . . and such are daffodils
> With the green world they live in.

Shall I wind up this tribute to the chief glory of our early springtide by recounting the evil deed of a Scottish country minister. It may be done harmlessly, both he and his wife having taken flight to the meads of asphodel. In the manse grounds and kirkyard was great store of daffodils—an annual delight to churchgoers. One Sabbath in a far-off March I was smitten with dismay to find that the scythe had been busy among the plants just about to burst into bloom. They lay in dismal swathes upon the lawn and among the graves. After the service I expressed my feelings to the minister in terms of some vehemence. 'Oh,' quoth he, 'it was done by my orders. My wife dislikes yellow; she considers it a vulgar colour!'

XXIV

Saurian bipeds

Field for interesting speculation is opened up by the republication, in his admirable volume *Prehistoric Problems*,[1] of Dr. Munro's presidential address to the Anthropological Section of the British

[1] Edinburgh: Blackwood and Sons. 1897.

Association in 1893. In this paper the learned doctor deals with the erect posture of man, which, unique as it is among vertebrates, he regards as being one of the main factors in the intellectual supremacy of the human race. No other animal, he points out, has ever succeeded in completely divesting its anterior limbs of their primary functions of support and locomotion, thereby setting them free for manipulative and prehensile purposes. The development of the human hand out of a fore-foot, until it became the most perfect mechanical organ hitherto produced by nature, stimulated, and, in turn, was quickened by, the mental faculties. 'From the first moment,' says Dr. Munro, 'that the being recognised the advantage of using a club or a stone in attacking his prey, or defending himself from his enemies, the direct incentives to a higher brain-development came into existence.' The selection of the kind of stone best adapted for cutting purposes required a mental act just as deliberate as the construction of a typewriter or the application of electricity: hand and brain reacted one upon the other, mutually stimulating each other to processes of thought and to action, ever becoming more complex and better sustained.

Now, this is no place to inquire closely into the validity of Dr. Munro's proposition, involving as it does the whole question between exoteric or inspired intelligence and esoteric mental evolution. But a recent visit to the Natural History Museum at Brussels, and inspection of the skeletons of the gigantic saurians

discovered in recent years in the coal measures of Bernissart, have suggested some curious thoughts in relation to the importance attached by Dr. Munro to the erect attitude as the primary cause of intellectual growth, and the consequent ascendency of man. We owe the preservation of these mighty lizards to what might be called irreverently a stratigraphic fluke. In Britain, only scattered bones of the iguanodon have been found. The beasts have been there, as their numerous footmarks in the Sussex weald attest, but when they perished the conditions were not favourable to their repose; floods, ice, and tides have dispersed the remains far and wide. But it was otherwise at Bernissart. Here a torrent of the Wealden age, having cut a valley nearly nine hundred feet deep through the carboniferous rocks, afterwards, owing to some alterations in levels or physical obstruction, took to meandering sluggishly between oozy shores. Every animal that perished in the stream or on its banks remained where it died, and was wrapped in alluvium. In long process of time this Wealden alluvium filled up the whole valley, and became overlaid with a series of cretaceous beds. Its contents remained undisturbed through ages, until in the present restless century it was penetrated by Belgian colliers, who laid bare a well-furnished museum of the peculiar Wealden marsh fauna.

By far the most remarkable of the remains discovered were those of the iguanodon, of which species twenty-five individuals were found at a depth of about one thousand feet below the present earth surface. Thanks

to the gentle movement of the Wealden river, hardly a bone was missing in some of the skeletons. A cast of a complete skeleton has been set up in our own museum at South Kensington. All the specimens recovered from the Bernissart pits are those of adults, some of them attaining the length of thirty-four feet from nose to tail-tip.

A group of these, occupying the centre of a large room in the Brussels Museum, gives a startling impression of the scale of the Wealden fauna. But what impresses the imagination most forcibly is that these animals are supported entirely on their hind legs. One asks at once what reason there can be for assuming them to have been bipeds. Apparently the answer to this question ought to be convincing. While the fore-feet have five fingers, the hind-feet have but three toes, and the footprints, of which abundance has been preserved, are exclusively three-toed impressions. With the occurrence of these in British beds geologists have been long familiar, though at one time their origin was attributed to a large bird. But the mystery is solved by the discovery of the real authors of them. The iguanodon, then, was an enormous saurian, walking as nearly erect as was possible for an animal which had to carry a huge tail clear of the ground, and with its anterior limbs, relieved from the functions of locomotion and support, free for the use of the five-fingered hands at the end of them.

Here, then, is very nearly the fulfilment of the erect attitude and freedom of the anterior limbs postulated by

Dr. Munro for extraordinary mental development. The posture of the iguanodon, indeed, was not absolutely erect; but, at all events, the hands were perfectly at liberty to serve as ministers to the brain, at once stimulating that organ to speculation and structurally adapting themselves to its mandates. Are we free to believe that, had terrestrial conditions remained favourable to the maintenance of a vigorous saurian population, lizards would have attained to the lordship of creation now exercised by man? That seems to be suggested by the speculations of Dr. Munro, at all events. A prehistoric peep at society under a lacertilian monarchy affords a promising subject for the pencil of ingenious Mr. Reed.

Nothing is more remarkable than the way in which facts fit into their right places under a thorough system of comparative research. Not many years ago few things would have seemed less likely to biologists than that lizards with long bodies and tails, and short, weak limbs, should resort to bi-pedal locomotion. But it is now known that the frilled lizard (*Chlamydosaurus Kingi*) of tropical Australia does so. Living specimens of this curious creature might have been seen recently in the Zoological Gardens (perhaps they are there still) which afforded ample demonstration that, though moving at ordinary times as quadrupeds, when they are in a hurry they run as a cricketer does between the wickets. The tail is carried clear of the ground, and the anterior limbs are free, just as the iguanodon used to carry them. Now Australia is full of archaic forms

of life, survivals of a fauna of Mesozoic type. The lacertilian race, as we know them, have greatly declined from their pristine exuberance. It is possible that in this unique habit of *Chlamydosaurus* we have a hereditary trait of a remote ancestry; though, on the other hand, it may have been a faculty independently developed in a single species.

Talking of the erect attitude, has anybody ever seen a grebe or a diver (*Colymbus*) in the conventional attitude assigned to these birds by artists and taxidermists? They are usually represented sitting or standing erect on dry land like an auk or guillemot; but Mr. Abel Chapman declares that it would be impossible for this attitude to be assumed in life, owing to the peculiar formation of the tarsus and metatarsal joints. In his recent admirable book on *Wild Norway*[1] he describes how he tried in vain to cause the feet of a newly-killed black-throated diver to bend forward sufficiently for standing on; and elsewhere he mentions that Mr. Cullingford, the bird-stuffer of Durham, always has to break the bones of the feet of grebes and divers, in order to set them up as people like them. Mr. Chapman believes that neither divers nor grebes ever go ashore, except to get to their nests, which are always very near the water, and that then they scramble along on their breasts, with legs and wings propelling them, after the manner of a seal. Unless proof can be shown that they can and do sit erect, most of the representations of birds of these two

[1] London: Edward Arnold. 1897.

families must be considered as absurd as an illustration of an ostrich soaring in mid-air or a swallow swimming across a stream. Divers and grebes do not sit up on end like auks, not from any prejudice on their part for a horizontal attitude, but because they cannot. When the ancient affinity of birds and reptiles is remembered, the importance of representing each in their true attitudes will be recognised as important.

XXV

Alas! for the big Game

To mention big game in these days is to waken melancholy reflections. Mr. H. A. Bryden has lately harrowed our feelings by describing the extinction of some beautiful races and foretelling the speedy extermination of others.[1] For instance, of the four species of zebra, the quagga was the most powerful and horse-like. Half a century ago it roamed the plains of Cape Colony, the Orange Free State, and part of Griqualand in countless thousands. It is now extinct, and the only memorial of it in this country is a single battered skin in the Natural History Museum at South Kensington.

'Never again will the traveller view its strange single-file march silhouetted against the distant sky-line. The quagga, that for many a thousand years decorated these primeval wilds and untrodden deserts, has clean vanished, never to return—recklessly destroyed by the short-sighted policy of the skin-hunting Boers of the last generation.'

[1] *Nature and Sport in South Africa.* By H. A. Bryden. Chapman and Hall.

The true or mountain zebra — the *Hippotigris* of Roman writers—has become very scarce from persecution.

'Within thirty years it will probably have vanished, and another noble form of animal life will be lost to us. . . . The zebra is invariably a picture of grace and beauty, a perfect type of feral life.'

The bontebok or pied antelope, one of the noblest of African game, was described by Cornwallis Harris in 1837 as swarming south of the Vaal River in such immense herds that 'the road made by their incessant tramp resembled so many well-travelled highways.' Now the race is represented by a small number preserved by the families of Van Breda and Van der Byl (their names merit honourable record), and even these, it is feared, will scarcely survive into the twentieth century, owing to the debilitating effect of inbreeding.[1]

The white rhinoceros—the largest terrestrial mammal after the elephant, according to Mr. Bryden, who, perhaps, excludes the hippopotamus as an amphibian —is in the last throes of extinction. Six specimens were shot between the Black and White Umvolosi rivers in 1894, and it is doubtful if any remain alive. Fifty years ago Gordon Cumming and others used to pot sixty or eighty in a season by night at the drinking places.

[1] This was written before the outbreak of the late war, the effect of which upon the wild animals of South Africa may be the subject of apprehension, but not of calculation.

The eland, to which hunters give the palm as the most splendid of all antelopes, is vanishing fast. Game laws, it is true, have been enacted for the protection of these and other of the fauna of Bechuanaland, but who is to enforce them in that wild country? Even if the Bechuanas (who are worse than the Boers, inasmuch as they slaughter game heavy with young, or with young at foot) could be restrained, who is to stop the inroads of hunting Namaquas? But it is vain to lay all the blame on the black man. The craze for big game makes the English traveller, with his express rifles and countless resources for traversing unwatered regions, as murderous as the native. Saddest of all chronicles is that of the beautiful giraffe—

'The sight of a troop of giraffes browsing peacefully in their native acacia forests, reaching with upstretched neck and extended tongue at some green succulent leafage far up in the spreading *kameel-doorn* tree, is one of the most beautiful things in nature. No man that has seen such a spectacle is ever likely to forget it. . . . Although I have set eyes on many rare and beautiful things in the African wilderness, that most fascinating revelation of wild animal life will never fade from memory.'

Let us hope Mr. Bryden's finger did not itch for the trigger. One doesn't quite trust him, so fondly does he linger in the previous page over the delicacy of giraffe marrow, in bones three feet long—'the greatest luxury of its kind in the world.' Well, the world will have to go without this luxury soon, it seems; well would it be if this were the sum of the

loss. There are so few giraffes left that one feels no gratitude to the author for his elaborate instructions how to ride these animals down.

The elephant has practically disappeared from Lake Ngami. Within two years of the discovery of this lake by Livingstone nine hundred elephants were slaughtered on its shores. Later, some Boer hunters drove a herd of one hundred and four into a marsh and butchered every one of them before set of sun. Carnage on this scale can never be repeated. *Il n'y a pas de quoi.* Will the British Government and the Chartered Company not combine to make a great sanctuary of some 100,000 acres in Mashonaland, and so protect us from the execration of posterity for permitting the extirpation of some of the grandest of living creatures?

April

XXVI

Owls

It suggests a sorrowful reflection on our civilisation that, at this time of day, after ornithological writers have been pleading the cause of the owl for many years, it should be necessary to repel objections to that bird and its various species being included in the list of farmers' friends. There was more reason for misunderstanding the true nature of owls in the days when the systematists classed them as a family of the order of *Accipitres* or Hawks; but now that the opinion has been generally accepted that they form a group of higher rank by themselves, their superficial resemblance to the ill-famed hawks ought to create no prejudice against them, or, at least, against those species which hunt exclusively by night. But a great deal of such prejudice remains to be overcome, especially among game preservers and their keepers; of which abundant evidence may be had by inspecting the collections of 'vermin' which are nailed up outside the houses of many gamekeepers. There is pretty sure to be an owl or two among the hawks, jays, and weasels. Farmers, it is true, are not generally actively hostile

to owls, but they are usually indifferent to their presence or absence. If they knew their own interests, they would take every means in their power to encourage these birds, and for the following reasons:—

Owls, most of them—all of those, indeed, which occur frequently in this country—are solitary nocturnal hunters, and their structure has been beautifully specialised for that vocation. The plumage is soft and velvety, rendering the flight noiseless, in strange contrast to the whirring of a cock pheasant, which warns his harem to lie low in the presence of danger, or the whistling wings of most of the duck tribe, the sound of which enables a number of them flying through the darkness to keep company with each other. On the other hand, the ear of the owl is developed in an extraordinary degree, so important it is that he should hear the slightest rustle or chirp of crouching mouse. The long-eared and short-eared owls are named, not from their ears at all, but from the horn-like tufts of feathers on the head; nevertheless, their true ears are very remarkable, the conch being enormously exaggerated and furnished with an operculum. But the most extraordinary feature in the ears of these owls is that they are not perfect pairs—the orifice opens upwards on one side of the head and downwards on the other, so that the smallest sound may be heard from whatever direction it proceeds. In some species this want of symmetry extends inwards to several of the bones of the head. Then the eyes afford another instance of special adaptation for night work, the pupil being

greatly dilated, so as to catch the slightest ray of light, which causes the bird to be purblind in daylight. Lastly, nearly all owls have a peculiarity in their outer toes, which are reversible, and may be used either backwards or forwards, a notable advantage in dealing with a darting mouse.

Such being the special machinery with which this bird of ravin is equipped, how does he use it? Does he prey on the farmer's young poultry or the gamekeeper's young pheasants? I have not the slightest doubt that if, and when, one of these comes in his way, the owl will pounce on it and enjoy it mightily. But young chicks are not, or ought not to be, abroad in the night, which is the only time that most kinds of owl can hunt; indeed, at such times there is very little moving abroad for him to catch except rats, mice, bats, moles, and large beetles. So it came to pass when, a few years ago, Dr. Altum, a German naturalist, set to work to examine the pelts of owls (the indigestible parts of its food which the bird has the power of disgorging after the rest has been digested), he arrived at a result which exactly coincides with what might have been expected. First he reported on the tawny owl (*Strix stridula*), known to everybody by his hooting—the species which gamekeepers will tell you bears the worst reputation of all for poaching. Of this kind Dr. Altum examined 210 pelts, which yielded the remains of 1 stoat (let gamekeepers set that to *Strix's* credit!), 6 rats, 371 mice, 48 moles, 18 small birds, and many beetles and cockchafers. Still more remarkable

were the results of the examination of 706 pelts of the white or barn owl (*Strix flammea* or *Aluco flammeus*), a species equally common as the last in this country. These were found to contain the remains of 16 bats, 3 rats, 2520 mice, 1 mole, and 22 small birds.

Now 706 pelts represent less than the product of one pair of barn owls during a year. Does any one in his senses mean to affirm that this pair of owls did no important service to the farmer in devouring 2520 mice in that space of time?

'All right,' says the game preserver, 'we may consent to respect those owls which hunt only by night, but how about the woodcock owl, which may often be seen hawking about the open moor by day? Surely you don't mean to tell me he is after no mischief?'

Well, I happen to have had particular occasion to study the habits of this bird, and I was forced to the conclusion that, although the short-eared owl (*Asio brachyotis*) is more diurnal in his habits than those mentioned above, and therefore is more likely than they to strike young game, his services to agriculture are no whit inferior. His daylight excursions and yellow iris have earned for him the name of the hawk owl, while he is often known as the woodcock owl, because in normal seasons the species is nearly entirely absent from the British Isles during the breeding season, and reappears as a migrant about the same time as the woodcock. In 1891-92 the extensive sheep pastures on the southern uplands of Scotland were devastated by one of those plagues of voles (*Arvicola*

arvalis) which have been known to recur at uncertain intervals in various parts of the world. I was appointed chairman of a departmental committee to inquire into the extent and probable cause of the plague, and to try and devise a remedy. We visited the infested districts; the hillsides swarmed with millions of voles; the grass over hundreds of thousands of acres was cut at the roots by these animals, which make shallow runs under the surface, and withered as if it had been seared by passing fire; the ewes were pining, dropping their lambs prematurely, or suffering them to perish for lack of milk. It was a melancholy scene.

One of the first abnormal features to attract our attention was the presence of great numbers of short-eared owls, which at that season are hardly ever seen in Britain, being occupied with their nests in more northern latitudes. However, during the two years of the vole plague these birds, attracted by the presence of multitudes of voles, remained throughout the year to batten on them. Not only so, but they nested in numbers, and, stimulated by the abundant diet, laid an abnormal number of eggs, and reared several successive broods in each season. I do not mean to affirm that they stemmed the plague, but no doubt can exist that they helped to check it in no small degree. As many as fifty short-eared owls might be seen on one hillside; and if these devoured no more than six voles each in a day, that means a total of 109,500 in the course of the year.

I think I have said enough to prove what valuable

auxiliaries to cultivators are the various species of owls, and I can safely challenge anybody to produce evidence of any counterbalancing injury that can be justly laid to their charge.

XXVII

Wild Bird Protection

It is satisfactory to note that the International Conference which assembled in Paris in 1895, on the invitation of the French Government, to consider the best means of concerted action for the protection of birds useful to agriculture, is bearing some fruit. The executive committee of the International Exhibition about to open in Turin have come to the wise decision to withhold all rewards from engines designed for the capture of such birds. There is some hope that a similar resolution may be adopted by the Commissioners of the Exhibition to be held in Paris in 1900. This is well, for in no other country have insectivorous birds been brought so near extinction as in Italy and France. The Conference referred to was the outcome of the conviction that, unless something was done to arrest the process of extermination, insect pests would shortly assume intolerable proportions. The delegates, representing every country in Europe except Turkey, where nobody thinks of slaughtering small birds, had for its president the late Prime Minister, M. Méline, and adopted a series of resolutions, nearly all of which the British delegates had the gratification of announcing as already in statutory force in these

islands. But that is not enough. Owing to the migratory habits of nearly all birds, they have to run the gauntlet of alert European *chasseurs* before they reach the comparative sanctuary of a land where nothing but what Frenchmen term *gibier sérieux* are deemed worthy of powder and shot. The regulations fall short of perfection even in this country; but the acts for the protection of wild birds other than game, passed in 1880, 1881, 1894, and 1896, have been long enough in force to afford some idea of their efficacy and general effect. This novel class of legislation was the outcome of a variety of circumstances. The improvement and increasing use of firearms, the strictness of game preservation, the zeal for natural history which takes the form of collecting specimens both of birds and their eggs and last but not least, the encroachment of human population and industry on the haunts of wild-fowl, had rendered certain interesting species of birds exceedingly rare, and threatened the complete extinction of some of them. The great auk had disappeared for ever, not only from the British list, but from the face of the globe. Timely legislation might have saved the race when, during the first half of this century, a few pairs still lingered round the islands of St. Kilda and Papa Westra, and when, as Audubon records, thousands of nestlings were cut up annually for bait by the Newfoundland fishermen; but it did not occur to anybody to interfere, and the great auk—the great awkward, as it might have been fitly named—will never be seen again.

When, in 1880, Sir John Lubbock (now Lord Avebury) first induced the House of Commons to attend to the grievances of our feathered fellow-creatures, he found it far from unsympathetic. It is not on record that any honourable member shed tears over the fate of the great auk, but a distinct thrill ran through the assembly when it was told that the black tern, the avocet, the bittern, the great bustard, the black-tailed godwit, and Savi's warbler, had already manifested their disgust at the inhospitable treatment they had received by ceasing to lay any eggs with us, and had become so exceedingly rare, that individuals of these species, alighting on their seasonal migration for 'a wash and brush-up,' were relentlessly persecuted, and generally found their way into some local museum with an obituary notice in the country paper. Sir John's Bill, then, found an easy passage through all its stages, and became the 'principal act,' of which subsequent acts have been amendments and extensions. Appended to it was a schedule, containing a list of wild birds for which a close time was provided, protecting them during the spring and summer months.

Perhaps the most notable general result of this Act has been the increase of the common wild-duck. Formerly, flapper-shooting—the shooting of young ducks as soon as they are able to fly—was a recognised, though inglorious form of sport; and many persons persecuted the helpless fowl for gain, finding a ready market for them. Sir John Lubbock's close-time, extending from March 15th to August 1st, practically put an end to

this industry, and wild-fowling was restricted to seasons when these birds are among the wariest and swiftest of feathered creatures.

Every bird, however, has to pass through the stage of an egg, and of eggs the original act took no account whatever. Now eggs, or rather egg-shells, owing to their beauty, portability, and easy preservation, have always been favourite objects of collection. They are sought after not only by the managers of the zoological museums, but they vie with butterflies and moths in the esteem of multitudes of schoolboys. Consequently, the trade of egg-collecting has become very brisk; the rarer the egg, the more diligent the search for it. Not only so, but British collectors insist on being supplied with British laid specimens. An egg is an egg, one might think; but no—the egg of golden oriole or hoopoe laid on the Continent may be had for a few pence; it is impossible to say how many guineas might be paid for one certified to be taken in Britain. Regularly organised expeditions used to set out each spring from our great towns to visit remote places on the coast frequented by such birds as the great skua, of which only a limited number of pairs remained in existence.

The act of 1894, therefore, was framed to give protection to the eggs of desirable species; but inasmuch as certain birds, though desirable in limited numbers, might be undesirable in multitudes, this act, unlike the original act, did not prescribe a uniform schedule for the whole kingdom. Taking advantage of the recently formed county councils, it empowered these local parliaments

to make provision suitable to local circumstances, and to obtain orders, on due reason shown, from the Secretary of State, prohibiting the taking of eggs of specified kinds of birds within their jurisdiction, or, if preferred, the taking of all eggs within strictly defined areas. Further elasticity was secured by provision for the limited duration of such orders, which may be made to run for one year or more. Power was also given to extend the close-time provided in the act of 1880 to any wild bird not included in the schedule thereof, and to vary that close time to cover any part of the year, or the whole of it.

County councils have availed themselves very extensively of their optional powers under the act of 1894, and already experience has proved the advantage of the discretionary liberty accorded to them. In the anxiety to protect interesting and vanishing species, protection has been obtained for certain birds, which, were they allowed to multiply unchecked, would become a serious nuisance. Thus the county council of Sutherland obtained an order prohibiting the slaughter of golden eagles, which a few years ago had become exceedingly rare. Already these noble birds have increased to such an extent that sheep-farmers are suffering loss in the matter of lambs. Had some persons obtained their way in 1894, the killing of eagles or taking their eggs would have been made penal under an act applied uniformly to every county in the kingdom, and until that act were repealed no redress could have been had by those who suffered. As matters

stand, the local authority can arrange for its own needs; as soon as the order expires, eagles will be removed from its protection, as well as ravens, peregrines, and other birds of ravin, which may have become too numerous. No reasonable person wants to have the air darkened with destructive creatures; but most people are interested in averting total extermination from any bird in the British list, and the proper machinery for this purpose seems to have been provided by Parliament.

One word as to the powers of county councils to extend protection to any species throughout the year. It is a power which, with one exception, ought to be reserved for special cases, such as the hoopoe, oriole, ruff, and reeve—beautiful birds which come to our land each year with the intention of breeding, but are no sooner seen than they are shot without remorse.

The exception referred to is the lapwing or peewit. It is one of the very few species of which we cannot have too many, because of its unflagging industry in destroying insects and molluscs on agricultural land. It is incapable of doing injury to anybody, and withal it is a lovely bird, and provides us with a prodigious harvest of delicious eggs. Among all the fowls of the air, there is not one to which the farmer ought to extend a more cordial welcome, because, feeding as it does exclusively on worms, insects, and molluscs, the presence of a couple of hundred lapwings in a field means very severe discipline among creeping pests. Dr. Bowdler Sharpe quotes Mr. Read as having counted about 8000

peewits in one field near Glasgow. Supposing each of these took only a brace of grubs or slugs as a light breakfast, who can estimate the value of their services? When they have depopulated the arable lands these birds resort to the shore at low tide, where, if their pursuits are not directly beneficial, they are at least absolutely innocuous.

Besides its usefulness as a vermin catcher, the lapwing earns our gratitude by the abundant supply of delicious eggs which find their way to the market each spring. Game preservers may be heard grumbling sometimes because country folk are diligent in collecting plovers' eggs. It is an unhandsome complaint; one ought rather to be glad that so many are able to make a little profit out of a harmless industry, and vary the monotony of their lives by an agreeable pursuit. Nothing tends to make the game laws more unpopular than a churlish grudge against certain occupations, such as collecting plovers' eggs and mushrooms, on the ground that dishonest people *may* take an unfair advantage if game or their eggs happen to lie in their way.

A third reason why the lapwing ought to be treated with special favour may be thought a sentimental one. It is an exceedingly beautiful and graceful bird—how beautiful, its abundance is apt to make one forget. But its glossy olive-green upper parts, shot with purple and steel-blue on the scapulars and wing coverts, contrast so brilliantly with the pure white breast and belly, and harmonise so well with the rufous tail coverts, as to make the peewit one of the chief ornaments of the

rural landscape. Then its jaunty crest, lustrous brown eyes, rosy feet and legs, and lively movements, combine to render it the handsomest of all British plovers.

It may be argued that, seeing lapwings are so abundant in these isles, there can be no harm in shooting them, especially as their flesh is quite wholesome and tolerably palatable. Well, it must be admitted that, although already far scarcer than formerly in some districts, there is no sign of diminution in the numbers of this species in others. Remember what has happened to our ruffs and reeves—not distantly related to lapwings. Once nesting abundantly in the eastern counties of England, ruffs are scarcely known there now, except as straggling passengers in autumn, so greedily have they been persecuted. If it were desired to extirpate a noxious kind of bird, the best way to set about it would be to collect all the eggs possible in spring, and shoot the parent bird during the rest of the year. This is exactly what we are doing to the lapwings. Each year a larger number of the adult birds are sent to the London market, and may be seen in spring offered for sale in the same shops with their eggs.

I write in the hope of enlisting the sympathy of sportsmen, county council men, farmers, and all lovers of Nature, in order that this senseless and inhuman treatment may be stopped. It is senseless, because if you kill the bird that lays the plovers' eggs, where will you get your eggs? It is inhuman, because there is not a single other species of wild bird of which civilised man eats, and is allowed to offer for sale both parents

and eggs. The remedy lies with county councils. Some of these have proposed the prohibition of taking the eggs. For the reasons given above, I should regret this. If every egg laid in the British Isles in March and the first fortnight in April were taken, plenty more would be laid in second hatches to replenish the race, and these would be protected by the growth of grass and young corn. But I do advocate legislative protection to the parent birds throughout the year, and the act of 1894 gives county councils power to obtain an order to this effect from the Secretary of State.

What has saved the lapwing from extinction in these islands hitherto is its migratory habit. Although in most parts of Britain lapwings may be seen at all times of the year, the birds that are with us in winter were bred far north in Scandinavia, while those reared in our own fields pass far south in winter. The lapwing is the only bird known to me of which the exact northern limit of the *winter* habitat may be traced in Great Britain. It may be seen in the Moray Firth throughout the year, but is not known in winter to the north of the Helmsdale watershed. While, therefore, it is classed as one of the resident species, it is, in fact, as truly migratory as any other birds. The cuckoo and the swallow pass southwards out of our ken in winter; but although the whole body of lapwings moves southward also, the northern fringe of it lies across the south of the county of Caithness. Spring returns, the homing instinct asserts itself, and each bird presses to the northernmost limit of its annual migration to rear its

young, true to that hereditary attachment to polar regions which seems to indicate in them the cradle of all organic life.

Migration may not prevail much longer to preserve the lapwing. The utmost limits of the Highlands are ransacked for eggs. Mr. Harvie Brown mentions one village in Banffshire in which a small tradesman passed 1680 eggs to London in the spring of 1893. If the trade in the birds themselves extends in like manner, goodbye to our pretty peewits. It is vain to point to the large flocks of these plover which move to and fro over the continent of Europe, and still frequent our shores at all seasons. Numbers are no guarantee against extermination — witness the bison of North America and the incredible herds of big game which, within living memory, peopled the plains of Natal and the Transvaal. The fate that has overtaken the bison and the quagga impends over the familiar peewit.

I have observed that most of the recommendations of the Paris Conference about the protection of birds have been carried out under statute in this country; but there remains one in regard to which action has not yet been taken. Birds are subjects of no state; they observe no political landmarks or frontiers, but move with the seasons from realm to realm. Hence measures taken for their protection, to be effective, must partake of an international character. The Conference invited the British Government to prohibit the importation of birds killed in countries which had decreed their protection. The lapwing is a case in point. Mil-

lions of these birds are killed in Holland, where their sale is prohibited at certain seasons, and these find a ready market in this country. It is not unreasonable to ask that Parliament should decree this traffic to be contraband.

XXVIII

A remarkable Blue-book

Parliamentary Blue-books seldom afford succulent reading—do men gather grapes of thorns?—still less does one turn to them for examples of high-class illustration. All the more agreeable, therefore, is the surprise imparted by a Blue-book (or whatever may be the American equivalent to a Blue-book) lately published by the Legislature of the State of New York, containing the first annual report of the Commissioners of Fisheries, Game, and Forests. This Commission, having been appointed as a permanent body by an act of 1895, which superseded the old Forest Commission, explains in the preface that its object has been to make its first report something more than commonplace—something beyond a dry recital of statistics and an account of work accomplished—in order 'to interest, and, in a degree, instruct, the great mass of the people of the State in regard to the fisheries, game, and forests.' The Commissioners are to be congratulated on the result of this attempt. They have produced a volume which is almost as interesting to naturalists and sportsmen in the old world as to those of the new. This is

specially the case in regard to the first moiety of the book, which deals with the fresh-water fisheries. In this country our game laws, much as they have been vituperated, are tolerably effective, without being oppressive. Salmon, also, have come in for a greater share of legislation in the United Kingdom than probably has ever been directed before to any living creature except man himself. But for the rest, how little has been done by the State to maintain the productiveness of our inland waters, and to encourage their improvement! Why, the trout, with which Scottish waters not many years ago teemed in a degree that seemed to defy exhaustion, are absolutely without any legislative close-time, and a small knot of Radical members have effectively blocked a measure to provide one, lest, forsooth, those tyrant landlords should derive an indirect advantage therefrom. No such qualms disturb the judgment of the legislators of New York State. They take the view, which it is conceivable is not altogether groundless, that the natural resources of a country for affording recreation to a hard-working population are a proper subject of their attention, even though some of those who are exempt from their share of toiling and spinning come in for a share of the benefit.

There are nine fish-hatcheries maintained in New York State at the expense of the public, whence live supplies are distributed to proper applicants, together with instructions as to the right way of placing fresh stock in the various waters. Sometimes application is made for young fish, which it would not be desirable to

introduce everywhere. Several demands for mascalonge —the American pike—were refused during 1895; on the other hand, the mascalonge fisheries in the State already produce a return of from 13,000 to 16,000 dols. per annum; so young fish and fry are freely supplied where such a voracious creature may be preserved without injury to other and more valuable species.

The extent of the operations of these hatcheries may be estimated by the amount of fish—adults, yearlings, or fry—distributed during 1895:—

Salmonidæ.

American brook trout (*Salvelinus fontinalis*),	1,901,000
European brook trout (*Salmo fario*), . .	850,250
Rainbow trout (*Salmo irideus*), . .	100,000
Lake trout (*Cristivomer Namaycush* [?]), .	645,000
Atlantic salmon (*Salmo salar*), . . .	15,000
Ouananiche ('land-locked' salmon), . .	30,000
Frost fish (*Coregonus quadrilateralis*), . .	1,875,000
	(besides 2,000,000 ova)
Smelt (*Osmerus mordax*), . . .	16,192,000
Mascalonge (*Lucius Masquinongy*), . .	2,480,000
Black bass (*Micropterus dolomieu* and *salmoides*),	15,760
Perch (*Perca Americana*), . . .	750
Shad (*Clupea sapidissima*), . . .	7,987,000

What contrast this affords to the way we manage our fisheries! Anglers in this country may be numbered by tens of thousands; angling is a priceless boon to the labouring classes near industrial centres. It is true that a great deal is being done by private enter-

prise to replenish our fisheries; but with what heart can a Scottish angling club or individual undertake the work, when protection is denied to fish during spawning-time? In New York State the statutory close-time for trout extends from September 1 to April 15.

This New York Legislature is not content with supplying young fish and instructing persons how to treat them after transport (an important matter, for in this country millions of fry are destroyed by transplantation from hard to soft, or from warm to cold, water, or *vice versa*). There is also a chapter in this marvellous Blue-book about the cultivation of insects and crustaceans suitable for food. One applicant received 10,000 fresh-water shrimps (*Gammarus*) from the Caledonia hatchery; May-flies (or day-flies, as they are called in the States), alders, duns, spinners, etc., are all recommended for transplanting. *De minimis non curat lex* is an ancient adage, but American anglers will not estimate by the size of the insects the benefit conferred upon themselves. One important provision, however, must not be overlooked—namely, that in no case are fish or insects supplied for introduction into private waters, only for those in which the public have fishing rights.

It is amusing to read in a parliamentary return an enthusiastic description of the joys of angling, with which the pages of this volume abound; but its peculiar feature consists in the illustrations. Not only are there head and tail pieces to the chapters—delicious vignettes of sporting incidents—but a series of coloured plates

has been added, delineating with admirable fidelity the principal fresh-water fish and the deer and other terrestrial animals of the State. Nothing perhaps is so seldom rendered satisfactorily in colour printing as trout of various kinds. Either the lustre is sacrificed to the brilliant colour, giving a harsh and exaggerated effect to the exquisite hues of nature, or the colour is made too uniform and its delicate gradations lost. But in these plates it would really be easy to believe that one was beholding the original drawings of Mr. Denton. They are absolutely faithful portraits both in drawing and colour. It would be very hard to equal the lithograph of the smelt; hardly possible to excel the skill with which the pearly tones on gill-covers and scales have been rendered. No publication occurs to mind containing figures of fish so nearly approaching perfection as these.

There are some very interesting subjects in zoology raised here and there throughout the book, curiously sandwiched with extract from fishery and game laws. The ouananiche, which is now authoritatively pronounced to be specifically identified with our Atlantic salmon (*S. salar*), is popularly known as the 'land-locked' salmon, on the supposition that some geological convulsion has created a barrier which prevents its descent to the sea. But the fact is, as the Commissioners point out, that no such barrier could prevent descent *to* the sea, however effectually it might bar ascent *from* it. These salmon, in Maine, Labrador, and Sweden, do not go to the sea simply because they

find ample store of food in their inland habitat—an important piece of evidence for ichthyologists, who for long have been inclining to the conclusion that salmon are naturally indigenous to fresh water, owning a common ancestry with brook trout, and only acquired a migratory habit from a craving for marine diet when inland waters failed to afford enough food to support them.

XXIX

The second issue of the Fish, Game, and Forestry Commissioners of the State of New York is like unto the first in abundance of excellent reading.

Fish and Game Preservation in America

'When the sail-boat is running across the wind at the maximum of her speed, the sensation experienced by the strike of a four or five pound fish bankrupts all description. . . . The pleasure is largely concentrated in the strike (and in the angler, I fancy) and the perception of a big fish 'fast.' The watchfulness and labour involved in the subsequent struggle border closely on the confines of pain. Brother of the sleeve-silk and tinsel, when at last you gaze upon your captive lying asphyxiated on the surface—a synthesis of qualities that makes a perfect fish—when you disengage him from the meshes of the net, and place his icy figure in your outstretched palms, and watch the tropaeolin glow of his awakening loves (please don't ask me to interpret this fine passage) soften into cream tints, and the cream tints pale into the pearl of moonstone—you will experience a peculiar thrill that the capture neither of *ouananiche* nor *fontinalis* nor *namaycush* can ever excite.'

Supposing this to be a faithful account of the capture of Sunapee trout (*Salvelinus alpinus aureolus*), a most desirable kind of char, which runs up to twenty pounds in weight, it is not surprising that the successful angler should enthuse a little wildly. Nevertheless, should a passage in the same tropical style occur in the Annual Report of Her Majesty's Commissioners of Woods and Forests, there might be talk of proceedings *de lunatico inquirendo*, yet the quotation is from an official paper issued by Government, which is reckoned one of the most business-like in the world. Instead of monotonous columns of print, covered in paper suggestive of groceries, such as those the publications 'presented to both Houses of Parliament by command of Her Majesty,' here we have 500 quarto pages, of which about one-fourth contain tabulated returns, the remainder being filled with papers on sport and natural history, profusely and beautifully illustrated, and the whole bound in buckram boards most delicious to the touch.

The object of a public department in propagating the love of field sports by such papers as the one quoted from above may not be quite clear until it is understood that the State of New York is an immense landowner, and nearly the whole of its estates are devoted to the preservation of game and sporting fish, which may be pursued by the public free of charge, but under strict regulations as to close time.

Now when we consider the haphazard, hand-to-mouth manner in which the freshwater fishings of Great Britain and Ireland are managed, when we remember

that such magnificent streams as the Tweed and the Shannon are made to yield every salmon that can be taken by hook or by crook, and that artificial replenishment by hand-hatching is absolutely neglected, we are filled with envy of the skilful development of natural sources conducted by the Government of New York State, and the question arises why we don't attempt something of the same sort. Well, the reply to that is found—first, in the immense superiority in extent of the territory owned by New York State to that of the Crown lands in this country. The area of the Adirondack preserve alone amounts to 801,473 acres, against which our greatest Crown domain—the New Forest—weighs in shabbily with some 65,000 acres. Next, the New York Commission supply fish stock gratuitously for waters outside the property of the State, subject to a very important condition. Every private owner of waters may apply to have them stocked from the State hatcheries at the public expense, after which, all private rights notwithstanding, the right of fishing in such waters is vested in the public. In short, the State offers to stock, and maintain the stock, in any waters, provided that it thereby secures the right of free fishing for its citizens. That, it will be granted, is a vastly different affair from free fishing as contemplated by persons who heckle candidates for Parliament on the subject in this country, and take no thought for the maintenance of the stock to endure the incessant drain.

How does it answer in New York State? Let Mr. Cheney, the State fish culturist, give his experience

of a pond (probably we should call it a lake) in the Adirondack. In this water 5000 brook fry trout were planted some years ago by the State. It did not occur to any free fishers to cast angle in this water till one Mr. Witherbee, lucky dog! went there one morning and secured five beautiful *frontinalis*, weighing in the aggregate 20¼ pounds, an average of over four pounds —of which the lusty, shapely forms are displayed in a photograph illustrating Mr. Cheney's paper. Of course, Mr. Witherbee did not keep his success secret; what angler ever does so? Half—more than half—the joy of fishing comes in the *mollia fandi tempora* after a good day.

'The pond' (says Mr. Cheney), 'of course, was public water, and at once it was fished without ceasing. One trout of over eleven pounds was taken from it—taken, too, without regard to the ethics of fair angling; and it is more than suspected that even a larger trout was taken from the inlet stream at the spawning season, a trout of thirteen pounds three ounces.'

Touching these same *Salmo fontinalis*, or American brook trout, great has been the disappointment experienced in this country in attempts to naturalise them, and it is only lately that the adverse condition—an insuperable one, it is to be feared—has been explained by Mr. Cheney. The *fontinalis* is not a true trout at all, but a char; and, like our native char, can only thrive in cold water. The mean temperature of most British waters is too high for them, and the result is that of many millions that have been reared and turned

out in our lakes and streams, not one in a thousand has been recaptured, and the rest have mysteriously disappeared. Probably they would succeed well enough in our larger and deeper lakes, some of which, like Windermere and Ullswater, Loch Grannoch in Galloway, and a few of the Welsh and Highland waters, already contain kindred species of char. To the enterprising and successful Society which has undertaken the development of the angling resources of Loch Lomond, the *fontinalis* might be commended with some confidence that it would thrive exceedingly in the profound abyss of that inland sea.

Space is wanting to touch upon all the attractive subjects in this delightful volume. Besides fish, papers are devoted to deer, ruffed grouse, woodcock, and other game, and statistics are given showing how the stock of these valuable and interesting animals has stood the annual inroads of trippers and freeshooters of all kinds, and suggesting further precautions for their preservation. Forestry, also, has its part in the labours of the Commission, though it is confessed that the present State law, which totally proscribes the use of the axe in its preserves, greatly interferes with the right development of its woodlands.

In short, it is long since I have come across a better guinea's worth of reading on matters piscatorial and venatic than in this publication. The illustrations alone are worth the money.

XXX

Fly-fishing

Should the political pendulum swing back in time to enable Sir Edward Grey to fulfil the confident anticipations of his party, his essay on Fly-fishing[1] will command an interest far beyond that of a mere treatise on his favourite sport. Indeed, it possesses that interest now. Even men with souls so dead as to be insensible to the angler's infatuation may peruse with pleasure Sir Edward Grey's memories of early Winchester days. They may listen as he tells with artless egoism how, arriving as a little north-country boy in that unfamiliar southern landscape, he wandered forth upon those meadows of wondrous green, and beheld, in the network of channels intersecting them, trout of a length and circumference undreamt of in the burns of his native Northumberland. They may follow him in his fruitless exercise of the art of fly-fishing as he then understood it, until that fertile moment when the higher mystery of the craft being revealed to him, he acquired the knack of presenting the dry fly. They may share his boyish worship of the man who caught more than any one else.

'He fished nearly every day, and from watching him long and often I became aware of certain peculiarities in his style. . . . He dried his fly harder and more rapidly than any one I ever saw, and brought it floating over the fish oftener in a given space of time. His rod and line used to make a very busy sound in the air as he dried his fly. It

[1] *Fly-fishing.* By Sir Edward Grey. London: Dent and Co. 1899.

was not pretty fishing to watch, but when he made a cast the line went out straight and accurate, and he once to my knowledge landed in one day from this much-fished part of the river seven brace of trout, all above the limit of size. . . . He was a very silent angler, as if his business was solely with the trout; and what he was, besides being the best resident fisherman at Winchester, remained unknown to me. I was so struck by his success in fishing that it never occurred to me to ask about anything else.'

Most of Sir Edward's book is devoted to dry fly-fishing—the most difficult branch of the art angler's craft—whereof he is acknowledged to be one of the most accomplished exponents in practice. But he has a good deal to say about salmon-fishing also, wherein he may expect to find less uniform acceptance of all his views. When were two salmon fishers ever in complete accord on the problems of their pursuit? On the varieties of salmon flies he takes what may be termed the rational view—namely, that these are multiplied far more for the delectation of fishers than the destruction of fish. The author's counsel of perfection is to be content with four varieties of salmon fly in different sizes; but, being human, he admits that such content is almost impossible of attainment.

'How often have I gone into a tackle shop to make provision for a spell of fishing in Scotland, and entered it with a fairly distinct idea of the limits, both in number and variety, of flies that were wanted, and how often have these limits expanded, and at last dissolved altogether under the genial influence of the display of flies upon the counter! The number of seemingly indispensable patterns increases as the

sheets of flies are spread before me; so too do the seemingly indispensable sizes of each pattern, and at last I emerge, exhausted by the struggle of selection, alarmed at the amount of my purchase, and yet uneasy for fear it should not be large enough, and I have omitted the one thing needful after all.'

Which of us does not recognise our own feelings under similar circumstances?

In this agreeable way does Sir Edward Grey discourse, discursive but never irrelevant, and never dull. His book is as little of a dry treatise as can be, and (it will scarcely be credited) I have perused it from title to colophon without once coming upon an allusion to the 'immortal Izaak.' Neither is Sir Edward a butcher. There is a vast deal that contributes to his enjoyment of a day's fishing besides the weight of his basket. Thus in Hampshire:—

'Every sense is alert and excited, every scent and everything seen or heard is noted with delight. You are grateful for the grass on which you walk, even for the soft country dust about your feet.

Again, in the Highlands:—

'There come times when the angler, who wanders alone after sea trout down glens and over moors, has a sense of physical energy and strength beyond all his experience in ordinary life. . . . The pure act of breathing at such times seems glorious. People talk of being a child of Nature, and moments such as these are the times when it is possible to feel so; to know the full joy of animal life, to desire nothing beyond. There are times when I have stood still for joy of it all, on my way through the wild freedom of a Highland

moor, and felt the wind, and looked upon the mountains and water and light and sky, till I felt conscious only of the strength of a mighty current of life, which swept away all consciousness of self, and made me a part of all that I beheld.

Anglers are prone to rhapsody, but it is not often that they can express the higher hedonism so featly.

May

XXXI

May in Denmark

FEW journeys of equal length afford so many agreeable contrasts as that between Berlin and Copenhagen. For a hundred and fifty miles the route lies through a vast, unfenced, sandy plain, barred with belts of gloomy pines; at Warnemünde the dusty corridor train is exchanged for a bright little steamer which, in a couple of hours, runs you across the sparkling Ostsee to Danish Gjeddesrodde; whence an amphibious railway winds its leisurely course towards the capital, through smiling pastures, English hedgerows, and beechwoods beloved of Hans Andersen. Not less surprising is the difference in the people from those you have left behind. German officials never suffer you to forget the 'mailed fist'; one feels lucky to escape from them without incurring some frightful penalty for breach of all-pervading military etiquette. But in Denmark all is changed; militarism has disappeared; the guard of the train is no longer an exaggerated drill-sergeant, nor has the stationmaster the bearing of a brigadier. The formalities of the *douane* are carried out sympathetically — almost apologeti-

cally (do not disregard the inscription within the Custom-House — *Tobaksrygnin forbydes* — that is, 'Smoking is forbidden'); the officers seem positively shocked at the nature of the duties imposed upon them as they request the traveller to unlock one of his many *pièces*. Then you are conducted with many smiles and bows (for this is of all countries the home of courtesy) to a truly luxurious railway car, and are made to feel as you take your seat therein that you are conferring unmerited honour upon the State which owns and works the line.

Have a care! there is a shade of perfidy in this attention. If you are induced to seat yourself in the forepart of this amphibious train, you will have to leave it at Vordingburg, some twenty miles further on, where the hind part is run upon the steam ferry, to cross the channel separating Laaland from Zeeland. However, on this warm Sunday afternoon in May there is not much hardship involved in the transfer, and waiting on the far side is another carriage, every whit as comfortable as the one you are leaving. And so forward, through a country neatly fenced with hedgerow timber, reminding one of England; through beech forests in exquisite new greenery, wherein groups of happy people and children arrayed in Sunday best are strolling; past trim gardens surrounding comfortable farmhouses and cottages with timbered walls. The landscape is fascinating as seen in the slanting rays, and the leisurely State railway does not rush through it in the vulgar, competitive way we are accustomed to in England.

On the whole, perhaps, the mean speed of Danish trains is less than those of any other country; but it is a narrow land, and there is always the risk of running over the edge of it. Besides, as you cannot fail to observe, the train officials have an immense deal of gossip to exchange with the station officials and bystanders. The time-tables have been arranged to suit this requirement, and we run into Copenhagen punctually to a minute. It is Sunday evening, and excursion trains are discharging crowds of trippers returning from the country. Most of these people carry wild flowers, and especially large sprays of beech with new tender foliage. The beech leaves are sadly withered, and I am disposed to pity these people for the disappointment they have earned by carrying home material of such transient beauty. But they know well what they are about. Next day my business took me into a number of houses in the town, the suburbs, and the country; every room seemed to contain fresh beech boughs, which, set in water, had revived, and formed a charming and simple decoration. As the oak is to England, the chestnut to Lombardy, and the pine to Switzerland, so the beech is the glory of Denmark. Comparatively few holiday makers ever think of Copenhagen—the 'market harbour' (just as our own Chipping Norton is the 'market north town')—as a place of quiet resort; yet it possesses many agreeable qualities not to be found in cities of wider renown Moreover, except Italy, Denmark is perhaps the only country in Europe where an Englishman may feel sure

of a hearty welcome on account of his nationality; and it certainly contributes to the pleasure of foreign travel to feel that one's presence is not an offence to the resident population.

There is a good deal to attract interest in the buildings of Copenhagen, though the Christiansborg Palace, burnt down in 1794 and rebuilt, burnt down again in 1884 and not yet rebuilt, stands silent and roofless, with grass-grown courts, in the midst of the bright, busy town. The sentries on the present royal residence recall by their equipment the armies of the eighteenth century; they always pace their beats in pairs, earnestly conversing, and each is equipped with a sword slung in the old-fashioned shoulder belt, an enormous antique cartridge pouch hanging from the other shoulder, besides carrying rifle and bayonet.

But the attractions of the town are duly set forth in many guide-books: perhaps its chief charm is the ease with which escape is made to a lovely country. Yes, for it is lovely in spring, though Denmark can boast no mountain scenery, no running water larger than a fair water-jump. Let me not do this sweet land injustice; it *has* its alpine tract round Silkeborg in Jutland, where the heaven-splitting Himmelbjerg rears its proud crest to the altitude of no less than 515 feet—the highest point in the kingdom. But nowhere can you get far from water, either fresh lakes or salt fjords, and with water, green fields, deep woods, and wild flowers, you must be hard to please if beauty does not abound for you.

One thing the stranger may notice with surprise in this the premier dairy country in the world. Nowhere else has the craft of producing the very best butter been brought to such perfection; nowhere else has practical instruction in the theory and essentials of dairying been so deeply instilled into the farmers and peasantry, as British farmers and peasants have learned to their cost. No town in the world can boast such a copious supply of pure cheap milk as is poured into Copenhagen through Dr. Busck's *Mælkeforsyning* (Dairy Supply Company). Yet in all the landscape not a cow is to be seen in the fields. No; because it is not yet mid-May, and it is only during four months in the year that the herds are turned out to graze. The remaining eight they spend in their stalls. We had occasion to visit several herds, and very beautiful some of them were, composed of red Zeeland cows, confined in some cases to the number of a hundred and fifty in a single building, scrupulously clean. Undoubtedly it is a disadvantage that the climate makes such long confinement necessary, a disadvantage from which the British farmer is exempt; yet he has allowed the Dane a long start in dairying. He may as well give up the competition, unless he is prepared to follow humbly in his rival's wake, and treat the business scientifically. It was humiliating to hear from the tenant of Rosendal that half of his butter was consigned direct to Manchester, the remainder going to Paris, as he explained in the course of a picturesque *middag-mad* at which he entertained us.

Oh, those *middag-mads*! how exquisite, but how far too frequent for safety! Mid-day meals the term signifies, but they met us at almost every hour in the day. The company stands round the table while the host pours out red wine for each guest. Then there is a general pledging and quaffing, chairs are set, and the viands, bewildering in variety, seductive in their excellence, undergo a sustained assault. Coffee, dry (absolutely sugarless) kummel and good cigars come in their course, and one is expected to bring a clear head to the business which follows.

It is charming to drive in spring from village to village, each with its church tower like an exaggerated dovecot; still more charming to stop the carriage and dive into the recesses of the beech woods. Endless vistas of silvery trunks, and below them a carpet, partly russet with fallen leaves, partly green with springing grass and wood hyacinths, and gemmed all over with purple lungwort, anemones white and yellow, and cowslips. Not such cowslips as may be gathered in Surrey or Herts; if you are a bit of a botanist you will notice that all through Zeeland the oxlip takes the place of cowslip and primrose, a form intermediate between both, stalked like a cowslip, but with larger flowers. It is a striking adornment to the meadows and woods.

Of game not much is to be seen, though the landowners are fond of pheasant-shooting. There are far too many grey crows prowling around, with less numerous magpies, to allow partridges much chance of rearing their broods. A hen harrier (a species now

nearly extinct in England) is circling far overhead, and a buzzard sails over the neighbouring copse. But the most conspicuous bird is the stork, associated with memories of Hans Andersen, to whom he was so dear. The storks have just arrived from the south to start their domestic affairs for the season. Danish householders hail their presence as bringing good luck to a homestead, and tempt them to build by placing a cart-wheel horizontally on the barn roof.

There is no better place to spend a quiet holiday than among this happy, contented people, once the scourge of English shores; and if anything else were wanting to attract roving visitors, the quality of Danish roads should find favour with bicyclists.

XXXII

The Mayfly and the Trout

Somewhat late the other evening, a trout, more daring than his fellows in the winding Lea, had the hardihood to seize one of a flight of large gossamer-winged flies as it floated over his nose. Instantly the news was circulated in subaqueous quarters that the insect was one of unusual delicacy, and before dark the dimples, rings, and splashes of rising fish might be seen all over the water. Throughout the previous week a few mayflies had been seen, heralds of the coming swarm, but not a trout would point his nose at one; delicate duns and March browns were all the fancy. But on the Saturday in question the beautiful queen of the ephemerids came out in

large numbers; fleets of mayflies had been sailing along the gentle current for more than an hour before the fish seemed to recognise the delicious banquet prepared for them in such lavish abundance; indeed, the presence of so many large insects on the surface seemed at first to scare the trout, and to put down those that were rising at smaller flies.

This hesitation on the part of the trout to begin their annual banquet is one of the best known, and, at the same time, least explicable, features of the mayfly fortnight. Trout have good memories, otherwise they could not profit by experience and be rendered so suspicious when much fished for. One would say, then, that such a remarkable event in the piscine year as the rise of the mayfly should be one to leave a lasting impression on their recollection, and that they would be keen to recommence the feast which had contributed so greatly to their enjoyment in previous summers, and also to their proportions. But it is not so. Every angler knows how suspiciously trout regard the mayfly at first. The big fellows wait till impetuous youngsters of half or three-quarters of a pound have sampled the consignment. If it turns out genuine and according to contract, they know that for ten days or a fortnight they will simply have to lie near the top of the water in some convenient lodge where the wind or current will bring within easy reach more than the most robust digestion can deal with. But when once these patriarchs begin, they lose their heads and abandon themselves to

gluttony. You may put one of them down by an awkward cast, you may even hook him and lose him in the weeds—it is no matter for mourning; plenty of other fish are rising steadily elsewhere; and if you have a special hankering after this one because of his size, or shape, or some other quality, return to the spot a couple of hours later, and the chances are you will find him quite ready to do business with you again.

In truth, it is not very delicate work this mayfly fishing. You may use gut as stout as would utterly wreck all prospects of success when fishing with a 00 or 000 quill; in fact, strong gut *must* be used, because this is the only time in the year when the biggest trout cruise near the surface, and the most delicate handling cannot avert disaster with fine tackle among weeds, and a violent creature of five, six, or seven pounds at the end of it. Nor does a fish after sucking down, say, sixty succulent mayflies bestow very minute scrutiny on the sixty-first object that comes over him, provided it has a fair general resemblance to the others and passes within convenient reach. There is none of that prolonged, agonising stare which a wary customer directs upon the artificial dun or 'fancy,' whereof the result is so often either to make him dash away in terror or sink out of sight in disgust. The chief difficulty, indeed, in the thick of the rise is to persuade a trout that *yours* is the best insect out of the scores which are passing over his head in a continuous stream.

It is well, therefore, that there should occur some obstacles to a conquest which were otherwise all too easy. Of these, wind is the commonest, and it has been peculiarly aggravating this season (1898). Sad, sad the monotony with which the banks of Hertfordshire and Hampshire streams re-echoed to one particular English monosyllable during the last week of May. The wind swept down every reach and swirled round every recess of the rivers, lifting the newly-hatched flies from the water, scattering them far over the fields, and tossing your airy make-believe into the least accessible branches of willow and ash. There is a good three-pounder lying where the stream ripples softly over a waving ledge of water ranunculus, right in the fair channel; you wait for a lull in the blast; you measure your cast with three or four waves of the rod, then, just at the critical moment of delivery, Notus, or Auster. or Boreas (for they were all on the rampage last week), swoops shrilly down and whirls the line into the pollard on the far side of the stream.

When all goes smoothly one is apt to be touched by remorse. Nobody has ever been known to hold his hand in salmon-fishing, except by reason of sheer bodily fatigue. But many a man must have felt when trout are well on the mayfly orgy that he wishes they would not be quite so simple. One friend of mine declares that he means to fish with a barbless hook—that he is content if he can morally 'bowl' the big fellows. I don't feel that this puts the

angler in a very dignified position. If *Homo sapiens* means to match his intellect with that of some other animal, he ought to hit upon one nearer his own intellectual stature. If a quarter of a century of compulsory education has done no more for us than to enable us to outwit a brook trout, we have no business to waste time in fishing. On the other hand, one cannot take a stand on the physical basis, for how should a creature with legs and arms, weighing some fourteen stone, not prevail against one with neither, weighing perhaps three pounds?

No; if you feel disinclined for easy slaughter, and are superior to the competitive vanity of a heavy basket, you can always handicap yourself by looking for fish in difficult places. There is one putting up his nose on the far side of those trailing willow sprays; the fly will come nicely over him if you can only land it in the opening above the tree, but then there is a thorn bush on the hither bank which interferes with free movement of the rod. It can only be done by a horizontal cast, not too low to catch the meadow grasses, nor too high to strike the willow boughs. There!—after several failures the feat is accomplished; the fly lands on the right spot, about three yards above the fish. Will it ever reach him? Will there come that fatal drag, caused by the swifter current on the near side, or by the line catching in one of the willow sprays? Right! It swims down as naturally as might be; just at the expected spot there is the tiniest disturbance, such as a water-beetle might create.

It flashes through your mind that it is only a wretched little dace after all; but at the same moment you strike. Woe be to you if your finger is on the line, for the action is followed by a mighty plunge, and away goes a heavy fish tearing up stream with the reel spinning merrily.

'Now that,' you reflect, as five minutes later you mark the index of your steelyard opposite the figure 4, '*that* is a neat bit of work. I wish that fellow in the club who is always bragging about his casting had seen it. I believe most chaps would have pronounced that fish impossible.'

There is another mode of handicapping the angler which was in vogue with our grandfathers, if old sporting illustrations may be relied on. They always went a-fishing in top hats and stiff stocks. By reviving this excruciating garb man would at least be giving evidence of intelligence not greatly more powerful than that of the fish he is trying to deceive.

XXXIII

Concerning the Sycamore

In the north, by common usage, we talk of the sycamore as the plane. The true plane, which, above all other trees, has endeared itself to Londoners by its admirable behaviour when exposed to the excessive drought and coal smoke inseparable from this metropolis, is not commonly planted in Scotland, although it seems to agree equally well with our cool soil and moist climate,

as it does with more southern conditions. The reason for the common Scottish designation of the sycamore must be sought in the ancient connection of Scotland with France, which is responsible for the presence of so many French words in Lowlands Scots. In old-fashioned French *plane* signified the sycamore, and *platane* the plane, both being forms of the Latin *platanus*, from the Greek πλάτανος, a name bestowed on the tree because of its broad leaves. The superficial resemblance of the sycamore and the plane has received scientific recognition by classifying the sycamore as *Acer pseudo-platanus*—the plane-like maple or mock plane. Such resemblances are neither rare nor perplexing among distinct species of the same family; as, for example, the so-called acacia (*Robinia pseudo-acacia*), which, although botanically speaking not a true acacia, yet belongs to the same pea-flower family as the acacia. But when this resemblance occurs between plants of widely separated families, the question arises at once as to the meaning and origin of such masquerade. When the plant is a humble one, such as the dead nettle (*Lamium*), the intention seems to be almost certainly protective—a kind of 'hands off!' on the part of an innocuous species which has acquired the appearance of a hurtful one. It affords a nice problem for discussion between teleologists and evolutionists to determine whether the controlling influence is exoteric or esoteric. Even in certain plants of grander stature the object is sometimes pretty obvious. The evergreen oak—the holm, hollen, or

holly oak—essays an ineffective imitation of the splendidly successful armature of the holly, in order to protect its lower and younger growth. But it is not easy to see what purpose is served in the assumption by the sycamore—a true maple—of the outward characteristics of the plane. Maples and planes belong to families widely separated in the natural order; their affinities are totally distinct. The fruit of the maple takes the form of keys or winged nuts, that of the plane being a globular and pendulous catkin. In this respect there is not the slightest resemblance between them, and it is not confined to the foliage.

I am making these random observations on the banks of the Tay, near Dunkeld. Fishing is rendered more futile than usual by a sudden and rapid rise in the water; the salmon, of which there is good store, seem to have gone temporarily off what little heads they have; they are cutting the most ungainly and superfluous capers; and it is about as profitable to offer them a fly as to hand a dish of *œufs brouillés aux truffes* to a parcel of Highlanders engaged in dancing a reel. So I have turned my attention to a large sycamore, which exhibits more plainly than most of its kind that habit of casting its bark in scales which it has borrowed from the Oriental plane. This does not extend to the younger branches, as in the true plane, but the bark of the trunk and main limbs is scaling off freely in the plane's best manner. I can offer no solution. Both trees are natives of Southern Europe, and exotic in this country, although the sycamore has

taken so kindly to our climate and soil as to propagate itself far more freely than our one native maple (*Acer campestre*).

XXXIV

Salmon for the Thames

It appears that a serious attempt is about to be made to restore salmon to the Thames. Doubts have been expressed—first, as to the possibility of this noble fish revisiting a river of such dubious purity; and, secondly, as to the view which Thames anglers for coarse fish will take of the advantage of a proceeding which some of them imagine will override their undoubted rights. Well, to take the last objection first, there is not the slightest ground for apprehension. The example of the Trent might carry reassurance in that respect. Nottingham anglers are proverbially the most skilled practitioners in coarse fishing, and the presence of salmon in that river does not interfere in the slightest degree either with the abundance of coarse fish, or with the sport of those who take them.

Then as to the condition of the river—who that knows the Tyne at Newcastle, which in its upper course is one of the best salmon-angling rivers in England, can doubt that the Thames estuary is limpidity itself compared to the sable current that flows through the northern town? It is argued that the tidal portion of the Thames is far longer than that of the Tyne, and that, whereas salmon might pass through a short course of greater pollution, they would

succumb to a longer passage, although through less impurity. It is true that from Teddington to Thames Haven is about three times further than from Ryton to Tynemouth, but there is material for reassurance even upon that point. The smelt (*Osmerus eperlanus*) is a true salmonoid, most nearly related to the grayling, exclusively estuarine in its habit. Its limits of seasonal migration are the highest point of the tide on one hand, where it deposits its spawn, and the lower reaches of the estuary on the other, whither it descends in autumn and winter. For more than half a century it has been unknown to frequent the Thames; doubtless in the bad old days of indiscriminate filth the waters of the estuary were uninhabitable by such a delicate fish. It disappeared: even the more robust eel could not get down to the sea to spawn, nor its myriad progeny of elvers return through the foul water. The continued presence in the Thames of eels, which *must* be hatched in the sea, can only be explained by the communication afforded by the Severn canal into the Bristol channel. In 1896, however, smelts appeared in numbers in the Thames, and were caught as high as Teddington, whence it appears plain that if the smelt is able to *reside* and thrive in the tidal waters, salmon may *pass through* them uninjured in their annual migration. It may be asked, Why not leave it to the salmon to find their way back to the Thames as the smelts have done? The answer is that there are no rivers now frequented by salmon within a great distance of the mouth of the Thames, although smelts have never ceased to inhabit

certain estuaries connected with that of the Thames. Probably, in course of years, wandering salmon might stray into the river mouth and work their way up to the first impassable weir; but why wait for such a slow and fortuitous course of events, if there is reason to hope for success by accelerating the process artificially? If salmon were reared in considerable numbers and turned into the Thames for three or four consecutive seasons, their well-known homing instinct would prompt them to endeavour to return there after an excursion to the sea. If they did not reappear, it would be fair to conclude that some conditions still prevail unfavourable to their existence; if they did reappear, it would be time to take steps to make the numerous weirs passable to the ascent of breeding fish.

Still, physical conditions must be fairly faced; and although there has been a vast improvement of late years in the cleanliness of the estuary, it cannot be denied that a formidable obstacle still exists to the free ascent of salmon. A recent expedition (1899) by river to the lower reaches of the estuary enabled me to realise some truly remarkable results of the joint action of the London County Council and the Thames Conservancy. Those who knew the river below London Bridge ten or fifteen years ago must have a recollection of a malodorous dark current flowing at low tide between exposed flats of black sludge. These flats have disappeared; the margins of the river are everywhere,

except where built on, bright flint gravel or clean sand. Men may be seen on either side all the way down from Woolwich filling barges with this sand, to be carried away and sold for building purposes. A few years ago these men might as well have washed for gold as dug for sand. The current is still turbid, as all water must be in a sandy estuary; but so far as regards suspended matter, there is nothing in its present condition to injure fish life. Proof of that is afforded by the recent return of sprats to the reaches about Barking and Tilbury in such numbers that the Conservancy are now considering the application of fishermen to be allowed to erect fixed nets for their capture, the objection to these being that they catch so many other kinds of fish. The condition of the water was tested by the nose at various points in the channel, and betrayed no more perceptible odour than always accompanies brackish water. Indeed, at one place, *immediately below the outfall from the sewage works at Barking*, two of the party, not content with olfactory evidence, had the hardihood to fill their mouths with the fluid, and declared they could taste nothing but salt. The improvement has been effected by the rigid precautions of the Conservancy in prohibiting all impurity being cast or drained into the river above bridges, and by dredging the channel below; and also by the scrupulous care of the County Council in removing all solid and flocculent deposit from the sewage to the extent of many million tons per annum, and carrying it out to sea in hoppers.

In short, the obstacle to the ascent of the Thames by salmon and the descent of their young is no longer to be looked for in the condition of the estuary water in early summer when there is an abundant flow of land water. The trouble comes later, when the volume of the river, shrinking with the seasonal influence, is further unduly diminished by the abstractions of the water companies. If the minimum recommended by Lord Balfour's Commission, 200,000,000 gallons a day, were kept flowing at all times over Teddington Weir, there would not be much doubt that the Thames could be restored as a salmon river. Unfortunately, the water companies are not provided with proper storage; London must drink, and wash, and water her streets; in September, 1898, the daily average at Teddington was reduced by abstraction to 76,000,000 gallons. Such a current has no weight to force its way seawards, still less to carry before it the effluent from Barking works, which, though purified by precipitation and de-odorised, has also been totally de-oxygenated. Consequently, in times of drought, a column of water, several miles long, and destitute of that oxygen upon which animal life depends, works to and fro with the tide, and certainly does effectually bar the mouth of the river to the passage of fish. Until this state of matters is remedied no salmon could pass up or down, say, during two months—August and September. But the same is the case, owing to sheer want of water, in many excellent salmon rivers. Relief comes in October, the wettest month in the year; and if it should prove the case, as

my impression is it will, that the Thames is already accessible during ten months for salmon as high as Teddington Weir, then the time is at hand when action may be taken hopefully; subject, of course, to the understanding that the Conservancy see their way to providing passes over the weirs.

Meanwhile, salmon or no salmon, the whole community owe the conservators and the County Council a deep debt of gratitude for the example they have set to other administrative bodies in restoring the purity of the river. What has been effected in the Thames, loaded with a population of five or six millions, may surely be undertaken in the Clyde, the Mersey, and the shamefully polluted rivers of Yorkshire.

XXXV

'Any duffer can catch a salmon,' one hears the supercilious chalk-stream artist observe with something approaching a sneer, and the truth of the observation could not be called in question if 'may' were substituted for 'can.' For, whereas a man might as hopefully set out to catch a London sparrow with his hands in the street as to attempt, without some practice in the craft, to beguile a two-pound trout in the Itchen with the dry fly, every salmon-fisher knows by what flukes salmon are sometimes brought to their doom. For instance, a certain well-experienced angling friend of mine, coming towards the close of a long day, during which he had carefully and fruitlessly

Harling

combed that excellent beat which is numbered Seven on the Thurso, laid down his rod in despair at the tail of the Sauce Pool after fishing it six times over. Leaving the line trailing in the water, he bade his gillie take down the gear and prepare for home. The gillie, without lifting the rod, began drawing in the line hand over hand; at that moment a salmon seized the fly—the angler the rod—and, in a few minutes, a sixteen-pound spring fish was gasping on the bank.

In spite of this and similar incidents that may come to anybody's mind, salmon-fishing is an art, and the greater plunder will fall to the rod of the best artist. But there is one branch of salmon-fishing, known as 'harling,' wherein all grades of proficients and tiros are brought to a common level, so far, at least, as concerns raising and hooking fish. Up to that point the only skill and knowledge necessary are displayed by the boatmen.

Harling, then, is a method of angling to which no sportsman who wants to get the keenest pleasure out of the capture of salmon will resort unless he is driven to it, and the only conditions which drive him to it are the volume and weight of a river too mighty for casting. In Scotland there is, practically, only one river on such a scale—the Tay, to wit, where harling had its origin and is still practised, though not nearly to such an extent as formerly. Men prefer casting the fly where cast it may be, because it is only in casting that the most exquisite sensation in salmon-fishing can be experienced—namely, that caused by a fish rising and

taking hold. Voluptuaries of a philosophic turn, who have been at pains to analyse and compare the quality of various forms of pleasure at the moment of fruition, have been known to declare that there is no thrill so delicious as that conveyed to the angler at the instant a salmon closes his mouth on the fly. It happens, then, that, inasmuch as this supreme moment is eliminated by the process of harling, some profess they would rather not fish at all than go a-harling.

Howbeit, harling is a pastime not devoid of excitement and more placid merits, and in some moods, and at certain parts, of a great river recourse must be had to it, or fishing be left alone. Nobody knows what a really great river is, the rush and the swirl of it, till he is embarked on its surface. It rolls along between towering cliffs, here receiving the waters of one great affluent and there those of another, which have no more apparent effect on its volume than the tribute of a conquered province or two have on the outward splendour of a great ruler. Your two boatmen (one pair of oars could not hold a boat on such a flood) receive you at the top of a long reach. You have brought three rods with you, which, being duly set up and a choice fly attached to each line—a Dusty Miller, say, and a Black Dog and a Smith—you seat yourself facing the stern, and launch forth into the deep. You let out thirty or forty yards of line from each reel, and arrange the rods, the ends of the butts inserted in holes, on the floor of the boat below your thwart—one rod pointing directly over the stern, the

other two directed outwards at an easy angle, while the flies trail away in the current, and receive a lifelike motion from the boat. A bight of each line is pulled out from the reel, laid on the thwart, and kept in position by a flat pebble. You have no further concern with rods or flies; all lies with the boatmen now, who direct their course across the stream, and return again, dropping a few feet lower in each transit. It is cold work in wintry weather; snarling winds lash you with wisps of sleet or stinging thongs of rain; but the deadliest work is often done in the least kindly weather. If there are fish about, they are pretty sure to be astir, and the excitement keeps the circulation going.

Far otherwise it often is in jocund May, when the sun blazes bravely in the blue lift. Fish are apt to turn sluggish then; you may tack and tack again over the likeliest lies, and it may be long before you get a pull. Your eyes and thoughts wander to the enchanting scene around. High on either hand tower well-clad cliffs; here—ridge upon ridge of oaks, the fat buds just bursting from the bronzy boughs; there—groves of lance-like larches, feathered with fringes of delicate, exquisite verdure. Riverside lawns there are, too, like that below venerable Stobhall, steeply sloping, starred with myriad primroses, and shaded with great sycamores.

It is very hot now. It is only awe of your boatmen that restrains you from exchanging your hard thwart for an easier seat on the broad boat-bottom. Besides,

it is difficult enough to keep awake as it is. The rocking of the boat, the drowsy lapping of the waves, the soft air, the hot sun—all dispose almost irresistibly to slumber. Perish the thought! what lasting remorse if a fish rose while the fisher slept! Ah! you were very nearly over that time, nodding heavily forward. You *cannot* keep your eyes open, you say, in this glare.

Suddenly one of the pebbles springs off the seat, and falls with a loud rattle on the boards. You are alert on the instant, grasp the bending rod, and, though you have lost the excitement of the rise, you are fast in a heavy fish which is ploughing steadily through the torrent fifty yards away. The boat is paddled into the slack water, the stroke oarsman winds in the lines on the other two rods, and, after the first force of the salmon is spent, you step ashore and play him to the death.

Such is harling. You are a little conscious of having played a very minor part in the drama; and so soon as the river shall have run down to such a level as permits you to discern the various lodges of fish in pool and stream, you will revert to casting, still using the boat as your platform, because, in rivers on this scale, it is only in select spots where the depth of the water permits you to cover the likely places from the shore or by wading. Harling, if only second best, is not a bad second at times, by reason of the superior weight of salmon killed in that way.

XXXVI

Do Salmon feed in Fresh Water?

This is a question of perennial argument among anglers, and both they and naturalists have received much food for thought in the parliamentary Blue-book lately published by the Scottish Fishery Board, containing the report of a committee of the Edinburgh College of Physicians and Mr. Walter Archer on investigations into the life history of the salmon,[1] has attracted much attention both from naturalists and anglers. It is a severe and impartial examination of the habits of the fish and of the physical changes to which its most important organs are subject during the passage to and from salt and fresh water. Those who are conversant with the methods of science and the scrupulous accuracy which must always distinguish the work of scientific men from the observations of ordinary lovers of nature, will not hesitate to accept the finding of this Edinburgh committee, especially as it coincides on practically every point with the results obtained by Dr. Miescher Russ from the independent study of Rhine salmon. But there is one part of the report which has proved beyond the digestive powers of many good anglers. This is the opinion arrived at on microscopic and biological evidence, that salmon do not and cannot feed during their sojourn in fresh water, because leaving the salt water when, and not before, their tissues are gorged with the nutrition which the fish

[1] Blue-book C.—8787, 1898. Her Majesty's Stationery Office.

went to the sea to obtain, the salmon loses the power of assimilating food, owing to rapid degeneration and sloughing of the epithelial cells on the whole of the digestive tract, whereby the whole stomach becomes absolutely functionless.

Dr. J. Kingston Barton has written in the *Journal of Anatomy and Physiology* (vol. xxxiv.) throwing doubt upon some of the conclusions arrived at by the Edinburgh committee. He maintains that the sloughing and desquamative catarrh is not apparent in the stomachs of salmon freshly caught; that the epithelium remains perfectly normal in living salmon, even up to the very eve of spawning; and that the Edinburgh physicians were deceived by post-mortem changes which proceed more rapidly in fish than in more highly organised vertebrates. Dr. Barton adduces the result of the microscopic examination of the internal organs of a red male salmon caught in the Fowey in November with the milt 'within a very few weeks of full growth.' He found the epithelium and digestive tract to be perfectly normal, and maintains that this is 'really conclusive of a serious fault in the preparations of the Edinburgh laboratory, and indicates an error in the deduction drawn from them.' But this error does not, in Dr. Barton's opinion, in the least affect the question as it concerns the angler. Dr. Barton is as firmly convinced as Dr. Noel Paton that salmon do not feed in fresh water, but undergo a 'prolonged physiological fast.' Neither does he differ from the explanation offered by the Edinburgh committee of the

functional derangement undergone by the salmon on entering upon this period of abstinence. This derangement seems to be caused by the diversion of the blood stream from the digestive to the generative organs, of which the first outward effect is manifest in that well-known discoloration which begins to tarnish the brilliant coat of a salmon as soon as he enters a river. Hitherto this has been popularly attributed to the oxydising properties of fresh water; but that explanation leaves out of account the remarkable restoration of lustre which takes place in the scales of kelts soon after spawning and before returning to the sea. This is now shown to be the consequence of the reversion of the circulation to its normal course, the consequent restoration of the stomach, gall, and liver to functional activity, renewing appetite for food, and causing the salmon to hasten back to the sea, where alone its hereditary intuition informs it that a good store of provender can be obtained.

'Yes,' argues the incredulous angler, 'but if kelts do not feed regularly in fresh water, how can you account for well-mended kelts—fish which were miserably attenuated immediately after spawning, and yet recover in girth and shape before re-entering the sea?'

To this puzzle, also, the Edinburgh committee have supplied a solution. They do not deny that regeneration may proceed so far, especially in kelts that are hindered from getting back to the sea, that the fish may take what food is offered to it, although it is contrary to the known habits of the kelt salmon to rove in

search of food. When he gets hungry, he sets off for the sea, where he knows there is good store of provender. But they show that the recovery of a kelt in vigour and shape is due to a fact not previously made known. In almost every female salmon, it seems, a greater or less number of ova remain unshed in the abdomen after spawning. As the stomach begins to recover its proper functions, these ova are gradually digested, and the nourishment they contain goes to restore the bodily vigour of the fish.

Such, briefly, are the chief points on which this remarkable Blue-book throws light, confirming the conclusion to which many salmon-anglers have been driven of late years, namely, that salmon do not feed in fresh water. But against the scientific evidence many practical anglers advance the undoubted fact that salmon in fresh water do take and swallow worms, minnows, and other edible objects. They will take a natural boiled prawn, and reject the closest imitation. A few weeks ago, I had practical experience of this. Having, with five others, secured a long lease of the river Cree for angling purposes, and having rented and put an end to all netting, I was fishing one of the upper beats on a fine May morning. The water was very heavy—too heavy for fly—but I secured four nice salmon. The opposite bank upon this beat was still under lease, which would not expire till Whitsunday, and upon that bank was the tenant of the fishing. He was dangling a huge bunch of worms in a quiet corner of a rocky cauldron, and, under my very nose,

as it were, pulled out eight spring fish. What do they take them for if not to eat? Well, it must be confessed that there is a difficulty in explaining this; but I do not consider the two facts—the inability to digest, and the capricious readiness to swallow—at all irreconcilable. They *cannot*, indeed, be irreconcilable, because they co-exist. The simplest solution is probably the true one—namely, that even a physiological fast is compatible with occasional and irregular impulses of appetite, which exactly corresponds with the well-known capriciousness of salmon in taking any lure; that the loss of digestive power does not necessarily imply suspension of the senses of smell and taste, thus accounting for the preference of a real prawn to a sham one; and that such digestible substances as greed, spasms of appetite, or predatory habit cause the salmon to swallow objects which cannot be digested in the existing state of the stomach, and must be rejected.

Incidentally Dr. Kingston Barton brings out one very interesting fact in the habits of the salmon. In the course of 1899 he examined nearly two hundred salmon, and the contents of their stomachs. In one of these he found the stomach distended with six full-grown herrings. That nearest the mouth had scarcely changed in appearance, the others were in a graduated state of digestion down to the sixth, of which only the spinal column remained. The remarkable feature is to be noted that all these fish had been *swallowed tail foremost!*

XXXVII

A correspondent, a watchful observer of wild life, asks me whether there is any cause known for the preference shown by nightingales for oak woods as compared with beech. He has noticed that the song of nightingales is never heard among the beech groves near his residence in Surrey, but that they abound among the oaks there. Probably in food supply, the dominant motive in all bird movements, is to be found the true reason. Nightingales are wholly insectivorous, picking up most of their food on the ground, and are believed to feed their young entirely on caterpillars; moreover, there is very little undergrowth in a beech wood. Oaks, on the other hand, are the favourite nurseries of numerous larvæ, and their shade is not hurtful to plants of humbler growth, which afford food for caterpillars of various species. It does not seem difficult, therefore, to solve the mystery of the attraction which oaks possess for nightingales.

Nightingales

June

XXXVIII

Through Touraine on Tyres

It would be very difficult to improve on foreign guide-books; Murray, Baedeker, and Joanne—there is very little to choose between them, and the amount of historical and topographical information stowed into a pocketful is nothing short of encyclopædic. Nevertheless, there are some things which, though it would be unreasonable to expect them in a guide-book, become of moment directly the railway is exchanged for the highway and the bicycle. In such a hackneyed district as the valley of the lower Loire—say between Orleans and Saumur—it matters not whether the railway traveller begins to explore it from the east or the west. But to the cyclist it makes all the difference in the world. He must begin in the west and work up-stream; thereby securing the favour of that steady, gentle wind which, in May and June, almost incessantly blows in from the Atlantic. With this precaution, perhaps, there is no land which so completely fulfils the cyclist's ideal three R's—roads, ruins, and restaurants—as Touraine, where the high roads have a surface as of brown holland or fawn satin,

châteaux are as thickly strewn as castles on the Rhine, and good wine flows as freely as it did for the monks of Thelema or the Three Musketeers.

There are two seasons when Touraine is at its fairest—early summer and mid summer. At Whitsuntide one cannot expect the feast of colour, the mellow skies, the animated movement of the vintage; but in their place, there are pure, cool mornings, all-pervading verdure, and infinite variety of flowering trees, shrubs, and herbs. Our own county councils might take a leaf from the books of certain French departments and communes which display good judgment in their choice of wayside trees. Take, for example, the road from Tours to Azay-le-Rideau, by way of Ballan. Ten miles of it lie across a monotonous plateau of corn and vine land; but on each side of the road elms have been planted, with a crimson horse chestnut after every ninth elm. The lovely blossoms of these trees are greater favourites in Touraine than the white-flowered species which prevails in England; and another exquisite tree is the rose-coloured Robinia, or, as we call it, Acacia, which, though quite hardy in Britain, is very rarely seen there. The Wistaria is past its best by the end of May, but the glorious Paulonia repeats the same tint and provides pyramids of delicate lavender hue, deliciously scented. It is only after a mild winter like last (1897-8) that this tree (which grows, but scarcely flowers, in England) can furnish a display. The flower-buds are put forth in autumn, and severe frost destroys them.

Of the châteaux on the Loire and its tributaries there is little purpose in writing; the visitors' books in each bear witness to the steady stream of English and Americans which pass their portals year by year. Perhaps Chaumont is the one which is least often visited, yet many will be found to give it the palm among them all. It lacks the sensuous languor of Chenonceaux and Azay-le-Rideau, is without the blood-curdling associations of Amboise and Blois, has none of the colossal ineptitude of Chambord, and does not cumber the ground with vast ruins like Chinon. Built on a towering cliff on the left bank of the Loire, just where the river sweeps widely from south to west, this fine structure of Philibert de l'Orme very closely resembles in plan the Scottish Caerlaverock. There are, for instance, the same pair of *jumelle* gate towers with drawbridge and portcullis between, behind which is the ample triangular courtyard, with ample round corner towers, the windows of the dwelling rooms giving full upon the sunny enclosure. Formerly the triangle was complete, as at Caerlaverock, but in 1739 the proprietor pulled down the western face furthest from the entrance; and thus, by securing a magnificent prospect of the river and rich champaign and forest beyond it, rendered Chaumout one of the most charming country houses that could be imagined.

Here, as elsewhere, in this land of noble dwellings, the hand of the renovator has been over-busy, scraping away the lovely ptarmigan grey which the splendid stone of the district assumes with age, and

restoring its original surface of dazzling ivory. Some of the tapestries which hang within doors at Chaumont may scarcely be rivalled elsewhere, notably those in Catherine de' Medici's bedroom, with marvellous shades of red, rose, and pink—the hues most seldom preserved in perfection in ancient fabrics and tissues.

But this is venturing upon the province of guide-books. Let me rather make mention of matters they make no note of—the living beauties of the field and wood and roadside. Birds, so sorely persecuted in winter, abound along the Loire in summer. During a ride on the left bank from Amboise to Blois, I reckoned that for several miles there was one nightingale singing in every hundred yards. The brightest of the finches—the goldfinch—was pretty frequent, a pair of hoopoes displayed their quaint attire, a redbacked shrike sat on the telegraph wire, deeply depressed by pangs of guilty conscience; blackbirds and thrushes sang in the oak copse; magpies, jays, a sparrowhawk, and a solitary carrion crow represented the criminal classes, while elegant little terns and vivacious ringed plover flitted about the sand banks in the river. Further on, near Beaugency, a remarkable company of six lesser grey shrikes were busy among the poplars, where, no doubt, they found good store of puss and kitten caterpillars. Crowds of bullfrogs, with tepid water awash upon their backs, croaked their content with matters in general, viewed from a marshy standpoint, and exactly expressed the cyclist's sentiments as, with a strong westerly breeze astern and a bright sun over-

head, he sped along this consummate highway, enjoying the best imitation of flight which apterous biped can ever realise.

Not the least advantage of cycling over railroad travel is the power to stop when you will. Many a village has a church worth looking into, generally wholly or in part of Norman work, such as would make a whole English county famous in antiquarian or architectural circles; and, of course, all the churches are open. Why is this not so in England? Are we ashamed of their ugliness? or have we more reason to suspect 'Arry of felonious intent than Antoine or Auguste?

In one respect we are entitled to claim advantage over our French neighbours. Whitsuntide trippers greatly favour the bicycle—in France as much as in England. But our lady cyclists rarely disfigure themselves by the atrocious knickerbockers which Frenchwomen seem to think indispensable. The knickerbocker or Zouave unmentionable might be rendered picturesque or even graceful if it were brought as high on the body as the male wears his trousers; but to preserve a long-pinched waist with bifurcated attire is only to ensure the disastrous effect of a huge unwinged insect.

It was gratifying to hear this impression confirmed by a withered old woman wearing the ordinary blue cotton gown and white cap of the peasantry. Standing in the street of an out-of-the-way village as an English lady rode by with well-cut petticoats, she observed to her gossip, 'Mille fois plus joli ça que le pantalon.'

XXXIX

The researches of the Spanish physiologist, Ramon of Cajal, have lately elucidated the structure of the human brain, a marvellously minute and complicated machinery, whereby every experience is converted into a reminiscence. Death or disease alone can destroy the impression. It is *there*, and the effort of memory consists merely in directing a force, probably a streamlet of blood, to the spot where the impression is stored; forgetting is the inability to distinguish that spot amid myriads of others. A mayfly—*Ephemera*—the creature of a summer day—a single image amid countless companies of its fellows—is perhaps an object less calculated to make a lasting impression than most others in this crowded world. Even a midge—so it plants its proboscis in the right place—may raise its own monument, and be remembered beyond the setting of many suns; but a mayfly might surely flutter past, innocuous and unnoticed, and never obtain place in the recollections of a wayfarer. Yet has an individual of this race—type of all that is light and fleeting—fixed itself more firmly in my memory than many other things which it would be more profitable to bear in mind.

Of a certain Mayfly

The vine-dressers of the Loire were losing all heart about their prospects. May had been miserable; June had opened joyless; the vines were not pushing in at all satisfactory form. All morning ragged rain-clouds had swept from the west over the grey town of Blois;

it was latish in the afternoon before the wind veered a little, the rain abated, and the sun shone out. We rode out to explore the forest of Blois, not, like John Evelyn, 'to see if we could meete any wolves, which are here in such numbers that they often come and take children out of the very streetes; yet will not the Duke, who is soveraigne here, permite them to be destroy'd': nor, like Evelyn and his companions, on stout hackneys, but on humble 'bikes,' as English travellers now do most wisely use. The forest is like many another in France—pleasing as an example of skilful woodcraft, whereby, owing to the value of firewood, no chip or fallen stick is permitted to rot where it falls—disappointing by reason of the number and breadth of street-like roads driven through it. But it is all of oak, beloved of nightingales, which sing all day in green twilight of the aisles.

After paying our respects to the tree called Louis XIV., fondly revered by the Blésois as the largest oak in France, though there are certainly greater ones in Fontainebleau, we rode forward to the western verge of the forest. Here the land falls sharply away into the valley of the Cisson, the road descending in a series of long gradients, engineered, one would say, for the special behoof of 'coasting' cyclists. A lovely vale it is: flowery meadows—too flowery, perhaps, to produce a high quality of hay—lined off with rows of rustling aspens, their satiny, *eau-de-Nil* bark in delicious, subdued contrast to the green, velvet prairie; here a hamlet clustering round a Norman church tower

with added *flèche* of the Flamboyant age; there an immemorial mill, squat, moss-grown, and so crazy that it is a marvel its perpetual 'clack-clack' does not shake it to pieces; again a gentleman's *maison de campagne*, white-shuttered, shaggy-lawned, with a glorious *Paulonia* strewing its purple blossoms on the red gravel drive, and filling all the grove with fragrance.

Set children at liberty in any place, and if there is pond or running brook at hand, it is by the side thereof that you will find them when you want them. So the cyclist—not the scorcher or the record-breaker, mark you, but the leisurely loiterer whom these contemn—will inevitably dismount on every bridge he crosses, to peer into the current. If the said cyclist is, in his worthier aspect, also a trout-fisher, I defy him to come to such a stream as the Cisson without emotion. A lucid, brimming current, of the volume of the Itchen at Chilland, tarrying here in placid reaches among the bending flowers, hurrying there noiselessly with long tresses of water-crowfoot waving in its liberal bosom; no tumult, no violence, nor any stagnation, exactly the varying, moderate speed of which the dry-fisher knows so well how to make use. A rise! yonder, beside that bunch of yellow rattle—just the little dimple that a good trout makes in sipping at a floating fly. O! for my trusty splitcane, far away in over-fished England. There! he rises again, and another—higher up. What fly are they taking?

At that moment a mayfly—a veritable green drake,

more yellow, it seems, than his British cousins—fluttered down upon the stream a few yards above the bridge. Its voyage was short; just as it floated over a little ripple above a cushion of weed, a dark, shining nose broke the surface, *Ephemera* disappeared, and a broad yellow gleam shone through the flood. O Tantalus! what pangs were mine! For many kilometres we followed that fair stream, nor saw a single fisher, fair or foul, though trout were rising in every reach. Near London such a brook would command a rent of £100 a mile: the Blésois, it seems, have yet to learn what foolish folks will pay as the price of their folly.

De minimis—John Evelyn, in a robuster age, brought home from Blois forest the remembrance of 'a gentleman, who was resting himselfe under a tree, with his horse grazing by him, who told us that, halfe an houre before, two wolves had set upon his horse, and had in probability devour'd him, but for a dog which lay by him.' I, closing my eyes, behold, as the chief event of a day in the same forest, a fragile fly, a trout's nose, and a gleam of gold in the fleeting Cisson.

XL

The Holly

The flowers of the holly are individually inconspicuous, and are seldom produced in such abundance as to attract much notice collectively; but this year (1899) they have formed quite a notable feature in the landscape. Hollies are naturally abundant in Hertfordshire, and many fine ones adorn the field and roadside hedges near St. Albans. A few

weeks ago some of these were hoary with innumerable small white blossoms. It will be interesting to note whether these are followed by an unusually heavy crop of berries,[1] or whether, like other fruits, they have been destroyed by the unseasonable cold of early June. Of course, as most people know, the holly is a dicœcious plant, bearing flowers of different sexes on separate trees, and that it is only on trees of the feminine gender that the berries appear. As in the case of the aucuba, one male plant suffices to fertilise the ovaries of a number of females planted near it, the pollen being wind-wafted from one to the others; but, unlike the aucuba, there is no means of distinguishing the sex of the holly before the flowers appear; planting, therefore, has to be done at haphazard. The female aucuba was known in this country in the variegated form for a century before the male was imported; many people will remember the agreeable surprise which was the result of introducing the latter. The male plants bear plentiful racemes of pollen-bearing flowers. It is only necessary to plant a diminutive male in the vicinity of a group of hitherto uninteresting females to induce these to produce an abundant crop of scarlet berries as large as small olives. The case was just the reverse with the well-known garden shrub *Garrya elliptica*. In this the male is the more ornamental, from its profusion of tassel-like catkins. It has been long cultivated in this country, but the female is an introduction of recent years, and I have never met her.

[1] They were not. The crop of berries was not more than average.

The disappearance of the holly from the woods and natural wilds of many parts of these islands is part of the penalty we have to pay for the presence of the accursed rabbit. The holly sows itself freely, growing vigorously under the drip and shade of other trees, even of the surface-rooting beech, which stifles almost every other kind of undergrowth; but it possesses an irresistible attraction for rabbits; seedlings and young plants are devoured bodily; mature trees even of three and four feet in girth are liable to be barked and killed; and thus one of the most exquisite ornaments of our woodlands has well nigh passed from us, except where laborious means are adopted to protect the plants. John Evelyn waxed enthusiastic over the holly, so abundant in his day on the Surrey hills:—

'But, above all the natural *Greens*, which enrich our *home-born* store, there is none certainly to be compar'd to our *Holly*, insomuch as I have often wonder'd at our *curiosity* after forreign Plants, and expensive *difficulties*, to the neglect of the *culture* of this *vulgar* but *incomparable* tree. Is there under *Heaven* a more glorious and refreshing object of the kind than an impregnable *Hedge* of *near three hundred* foot in *length*, *nine* foot *high*, and *five* in *diameter*; which I can show in my poor *Gardens* at any time of the year, glitt'ring with its arm'd and vernished *leaves*? the taller *Standards* at orderly distances, blushing with their natural *Coral*.'

The hedge alluded to was not at Wotton, but at Evelyn's other place, Sales Court, Deptford; and it is on record how it was injured and almost destroyed by the Tsar, Peter the Great, who, when he became tenant

of Sales Court, used to amuse himself by trundling his courtiers in barrows down a steep hill into the hedge.

XLI

The Rook upon his trial

For many years past scandal has been busy with the character of one who has been the friend of most of us from childhood—the common rook—and now the charges against him have been formulated; he has been put upon his trial, and, sad to tell, a verdict of guilty on all the counts has been returned in the court of first instance. The defence set up before the Galashiels Farmers' Club in 1897 was that the number of rooks in the country had increased so vastly of late years that the supply of their natural food—grubs and hurtful insects—was no longer sufficient for their maintenance; further, that an inferior bird to the rook, the starling, had been allowed to multiply out of all proportion to its merits, and grievously interfered with the privileges of the rook, by its incessant diligence in pursuit of creeping things. A conviction was obtained, and the rooks of Galashiels were sentenced to undergo the extreme penalty of the law; but, being a sagacious community, they moved to lands where the writ of Galashiels farmers does not run—to Peebles, for instance, and other pleasure resorts. This year (1899), however, proceedings have been taken against the whole race of rooks in Scotland on an extended scale. The farmers

have roused the sporting interest, adducing damning evidence of ravages upon the eggs of game-birds, especially grouse and blackgame. The Border Union Agricultural Society proclaimed a crusade to last for a month; and within that period, besides harrying nests and destroying eggs and nestlings, 4400 rooks were killed and paid for at the rate of threepence per head. Other agriculture societies have taken up the matter; next spring will probably be one of exemplary vengeance over the greater part of the Lowlands, and already one fancies that there is an additional note of anxiety in Chaucer's 'crow with voice of care.'

The most devoted lover of birds must admit that the time has come when it is necessary to adopt some repressive measures. The excessive increase of the rook population, to the detriment of other wild species, has been the subject of growing solicitude on the part of those who care for country things; now that farmers and sportsmen have joined with naturalists in demanding a check, something effective is pretty sure to be done, and not a moment too soon. Nobody wants to extirpate the rook; English landscape could not afford to part with its cawing colonies; but it must be as colonists, and not an army of occupation, that rooks receive their welcome among us.

The results of some careful experiments conducted by Sir John Gilmour of Montrave, a well-known Scottish agriculturist, have been published lately. Sir John, wishing to ascertain the relative advantage and

detriment to farmers in the presence of woodpigeons, starlings, and rooks, undertook a careful and impartial analysis of their diet at all seasons of the year. Beginning on March 1, 1894, by February 28, 1895 he had examined the contents of:—

	Males.	Females.	Total.
Woodpigeons, . .	143	122	265
Rooks, . . .	167	188	355
Starlings, . . .	114	76	190
	424	386	810

Of the woodpigeons, the crops of nineteen were empty, and one was diseased, leaving 245 for examination, which showed:—

Cereal grains, ...	33 per cent.
Leaves, ...	27·5 ,,
Fruits and seeds, ...	23 ,,
Roots, ...	8·5 ,,
Flowers, ...	8 ,,
	100

Inasmuch as the leaves were chiefly those of clover and turnips, it is clear that the mischief done by these woodpigeons to crops far outweighed any benefit conferred by the destruction of weeds. Of the 190

starlings examined, 15 were empty. The remaining 175 showed:—

Grubs and insects,	70 per cent.
Grain,	22 ,,
Miscellaneous,	8 ,,
	100

Three hundred and fifty-five rooks were found to contain:—

Grubs and insects,	23 per cent.
Grain,	58 ,,
Miscellaneous,	12 ,,
Roots,	7 ,,
	100

Most farmers will concur in Professor M'Alpine's finding upon this evidence (*Field*, May 16, 1896): 'Of the woodpigeon, it may be said that he is an unmitigated scoundrel; of the rook, that he is a cunning rogue; but of the starling, we can say with truth that he is our natural friend by habit and instinct.'

XLII

Water Supply

South-country trout streams present a sorry prospect to the angler this season (1898). Recent rain has done nothing to replenish the reservoirs whence they are drawn, though it has sent a

passing surface flush down the channel. Chalk streams flow from sources deep in the bosom of the downs, where the rain and melted snow of winter are stored up, to be discharged evenly and slowly through the summer. It is this that gives a chalk stream valley its peculiar charm—the contrast of a brimming channel bordered with vigorous growth and unflagging verdure amid the baked and withered uplands on either hand. A chalk stream generally runs brink-high throughout the summer heats; but this year, be the summer what it may, there can be no generous gush over waving tangle of water plants; only, in many streams, an oily and scanty meander among mounds of weed and tracts of unlovely mud. The north-country scheme of hydraulics is different. Only yesterday, a 'snell' south-easter drove heavy rain-clouds in from the North Sea, and the burden they discharged upon the Grampians is hurrying eastward again to-day under the keel of my boat as I sit 'harling' on the Tay. But feeding a Hampshire chalk stream not one-hundredth part of the Tay in volume is a far more deliberate process. The supplies of Itchen and Test have to be laid down, like wine, long before they may be enjoyed; it is the shortage during the last two winters which makes the outlook so serious for the present season.

In some streams, indeed, the evil is of a more permanent nature. Men multiply so fast that they are drinking up all the water within reach. The Hertfordshire Lea and the Surrey Tillingbourne have been permanently diminished in volume by the persistent tapping

of deep springs in the downs to supply the growing wants of towns.

Well, there is plenty of water in Scotland still, though we have played, and are going to play, some unhandsome tricks with it. Glasgow proudly bears on her shield St. Mungo's salmon, which certainly was caught in the Clyde, but she and her grown-up daughters have so effectually defiled that lovely river that no salmon can pass up to Cora Linn and live. When Colonel Thornton visited the Linn in 1786, hundreds of salmon were leaping at that impassable barrier. Glasgow knows better than to drink the Clyde: she possesses an unrivalled reservoir in Loch Katrine; and her people being, as all men know, mostly temperance folk, drink so much water and so fast that, even now, works are in progress to raise the level of the loch by further five feet, which is tantamount to lowering Ben Venue by so much. Many an acre of purple moorland and silver-stemmed birches will be submerged; Ellen's Isle will be reduced to a mere pimple on the bosom of the lake, and the famous Silver Strand will disappear for ever. Edinburgh, on the other hand, having lapped up every drop in her own watershed, is about to cross the Pentlands and tap the sources of the Tweed.

Scribbling these notes while seated, as I have explained, in a boat with a couple of rods dragging about enormous flies, I am tempted to wish Glasgow and Edinburgh would temporarily absorb some of the superfluous moisture that renders all modes of fishing

except 'harling,' out of the question. *Rusticus expectat!* Horace was no salmon-fisher, but how his verse keeps running in one's head while waiting and watching, day after day, for the waters to abate to fair fishing size. In a river on the scale of the Tay it is little use putting up marks to see if 'she' is waxing or falling. In smaller streams a few hours will make all the difference, but the Tay rolls on day after day with scarcely perceptible change. It is surprising to note how little apparent increase in volume is caused even by the influx of what would be considered by many fishermen a large river. The Isla, an important tributary, deep withal, and so wide that it is spanned by a bridge of five large arches, flows in, and is swallowed by the mother stream, which lumbers along, as if nothing had happened. A couple of miles lower, at the Linn of Campsie, rocks divide the Tay into three or four channels, each of tham not inferior in scale to many a famous salmon-stream.

Well, 'she's ower big the day, and she's a bad colour, forbye.' There is not much chance of a fish, but there are many less delightful ways of spending a day in Montgomerie's festival of 'the cherrie and the slae' than being paddled about on the broad expanse of this grand river:—

> '"Behold the Tiber!" the vain Roman cried,
> Viewing the ample Tay from Baiglie's side.
> But where's the Scot who could the vaunt repay,
> And hail the puny Tiber for the Tay?'

The month of May can be much the reverse of

jocund in these latitudes—has been so, in fact, for the last week, dealing ugly buffets from the east, and splashing viciously with icy rain; but to-day she is all smiles, argent and azure aloft, vert and or dominant in her heraldry below. Towering cliffs rise on either shore, sombre still for the most part, being clad chiefly with oak; but there are breadths of larchwood too, of tenderest green, frosty display of blackthorn with milky splendour of wild cherries, and here and there a stately sycamore by the waterside, well-leaved and in full flower. Nor is it a flower to be despised, though, being green like the leaves, it is not particularly decorative.

It is doubtful whether a blind man could always discern the exact season by the odours afloat; but of these there are two which, above all others, contribute to the indescribable scent of spring, which we all know and rejoice in. The source of one of these is in the open — gorse-blossom to wit. Nobody standing on an English common when the gorse is in bloom could fail, however blind he were, to perceive that spring had come. The other fragrance is of the woodland, and is breathed from the myriad tassels of the sycamore—the plane, as we call it incorrectly in the north. Being from the north myself, I never can associate the plane of London streets and squares—the true plane—with Arthur Clough's beautiful lines on the coming of spring. He surely meant *our* plane and *your* sycamore, but sycamore wouldn't scan:—

Put forth thy leaf, thou lofty plane,
East winds and cold are safely gone,
With radiant suns and gentle rain
The summer comes serenely on.
December days were dark and chill,
The winds of March were wild and drear;
Aye nearing, aye receding still,
Spring never would, we thought, be here.'

Thus much memory afloat; were I ashore and within reach of reference there were less risk of misquotation.

Talking of gorse, Bentham, most precise of botanical writers, observes that it is 'rare in the Highlands.' This is scarcely correct; for in some places, notably along the Tay, it abounds, and so right away to John o' Groats and Cape Wrath. But it is true that over large districts in the north its place is taken by the broom, forerunner of the rose as the royal badge of England. Its blossom is more fleeting than the gorse, but it is even more profuse while it lasts.

Gardeners and garden lovers seem slow to realise the singular beauty of a variety of the common broom which has lately come into the market under the name *Cytisus scoparius Andrewsii*. In this lovely shrub the standards, or upright petals, are dyed a deep crimson or maroon, contrasting vividly with the rest of the golden corolla. It is as easily grown and as hardy as the common type, and may also be forced into bloom a couple of months before it is due to flower in the open. It makes a brave show in the conservatory, and so little are people acquainted with it that visitors almost invariably ask, 'What is that beautiful exotic?'

July

XLIII

Town Gardening—as it might be.

THE unwritten edict, surely the most tyrannical and irrational to which suffering man ever bent his neck, which decrees that well-to-do folk who have spacious country homes shall desert them for at least three of the fairest months in the year, and immure themselves in costly and narrow town quarters—that edict, I say, seems so immutable, that it is wisest to accept it, and render it as endurable as possible.

Nothing less than the precession of the equinoxes can ever render London an open-air city. That Queen's weather, which made the Jubilee summers of 1887 and 1897 memorable among decades of fitful or adverse seasons, would enable us, could we count on it, to give ourselves *al fresco* airs, to line our pavements with café chairs, to dine and sup under the stars, and use our houses only for work or sleep; but, as things are, we have to pay the penalty of disregarding the obvious lesson of Nature; so long as we persist in swarming into London when it is least habitable, instead

of putting off our work and amusement there till winter, when coal fires make the town comfortable.

The first hot days, and we are quoting graceful Mr. Lang:—

> 'Friend, with the fops while we dawdle here,
> Then comes in the sweet o' the year!
> And the summer runs out like grains of sand,
> When fans for a penny are sold in the Strand.'

Ebbene! if we can't end it we might surely mend it, by importing summer finery in more liberal measure into our streets. Window boxes—why are they so few? Partly because people who take a house for a few weeks or months often grudge the expense of furnishing such boxes. The mode prescribes table decoration on a liberal and costly scale; many a dinner-table is decorated at a price that would fill every window of the street front with flowers; flowers, too, that would give pleasure, not for a couple of hours to a score of indifferent guests, who care more for the *plats* than the parterre, but to every dweller in the house and to every passer-by in the street; flowers that would not wither in a night, and add to the morning's mass of decaying refuse, but living flowers that would flourish till the autumn frosts, each green leaf doing its work in sweetening the atmosphere for a million pairs of lungs. Be it far from any one to discourage the flower trade: may it long flourish pretty and prosperous! Only, if there is money to spend on it, shall it all be on flowers for a night, and not part of it on flowers for a season? From my writing-table I have view of about twenty-four homes across

my flowerless sill, in some of which I have partaken of liberal hospitality at tables laden with lovely flowers. But only two out of these two dozen houses display growing flowers in the windows. Fashion is conveniently impersonal; let us lay the blame on her, and reflect if we could not get more lasting enjoyment out of our flower bills—for ourselves and, less selfishly, for the man in the street.

Much as may be got out of window gardening, there is still more to be made out of our areas. In window-boxes the plants are popped out in full flower, and the wayfarer cannot mark his calendar by burgeoning bud and lengthening spray. It is the exception to see any of the green things of the earth trained against the dreary leagues of brick and stucco of western London, unless it be the American mock-vine—*Ampelopsis* or Virginian creeper. That vigorous climber is certainly something to be grateful for, so bravely does it thrive in the alternation of torrid drought and noxious vapour which constitutes London climate; in autumn, when all the gay people have fled, it veils with its long tresses many an ugly object. But it is very late in habit; often, as happened this year (1898), the last sands of leafy June are running out before the mock-vine spreads its green mantle. There are other good things, hardly less patient of London air, for training on house fronts, which one very seldom sees. Roses, honeysuckle, even ivy, must be despaired of; these, and many other fair things, cannot endure the scorching of the sun refracted from walls and pavement. Here and there, indeed,

ivy may succeed, but, as a rule, all evergreens are hopeless.

But if you want unfailing summer verdure, plant a fig-tree in your area; the hotter the summer, the fresher spread the splendid leaves, purifying the air for many yards around—the best of all Cockney trees of lowly growth. The common laburnum, too, is a charming wall shrub for a town; two only I know of in London—one in Belgrave Square, another in Grosvenor Square—and though I have not the privilege of acquaintance with their owners, year after year, as regularly as May comes round, I bless them for these pretty trees.

Magnolias—most magnificent of flowering trees—seem not to have been tried, but there is little doubt, seeing how well they flourish as standards in Hyde Park, at Kew, Syon House, and elsewhere near the metropolis, that they would lend themselves to wall decoration. Only it must not be the evergreen species, *M. grandiflora*, but such deciduous kinds as *Exoniensis*, with chalice of ivory-white; purple-stained *Soulangeana*, or the myriad blooming *parviflora*. The Persian lilac is a good area plant, though I have only seen it once grown in that position—again in Grosvenor Square. The scientific name of the lilac is *Syringa*, but among the shrubs we commonly call syringa in English—the white-flowered *Philadelphus*—are some species which it is almost certain would thrive in town, as they do in suburban gardens. The rarer and more robust species should be chosen—*Philadelphus grandiflorus* and *Gordonianus*—which are simply

splendid at midsummer in their wreaths of fragrant, waxy bloom.

Of the effect of town life on the worthier species of clematis I cannot speak with confidence. There is a very large plant of some kind of clematis, apparently the white-flowered, odorous *C. montana*, on the side of Dover House facing the Horse Guards Parade; but it is pruned so closely every year that it never flowers, and this is a kind that flowers only upon the growth of the previous year—an important characteristic to remember in dealing with flowering shrubs of that nature. Many a fine Banksia rose I have seen defrauded of its display of blossom, simply because it has been tightly pruned like a hybrid-perpetual, which flowers on the young shoot. The common white jasmine is another climber which should never feel the knife, save to *thin out*, not to *shorten*, the stems.

The white acacia, more correctly *Robinia pseud-acacia*, one of the best and surest trees for street planting, might be used with good effect for training on the wall of a town house. None has more lovely foliage, none bears greater abundance of flowers, nor carries them for a longer period. The rose-coloured species (*Robinia hispida*) is even freer to blossom, and is a very beautiful plant, but I fancy the sticky hairs which cover the young shoots would get clogged with smuts to the injury of its vigour.

The most beautiful area plant of all is one that unluckily flowers too late to decorate London streets during the season; but if anybody wants to realise the

extraordinary beauty of *Hibiscus Syriacus* (also called *Althœa frutex*), let him wander down Cheyne Walk some September evening. Needless to mention the number of the house; afar off he will see a cascade of lovely blossom—a shrub some seven feet high, bearing on every twig large flowers, white, with a claret satin on every petal. This is only one variety of this choice mallow-wort, which revels in all the sunbake it can get; you can have it, if such be your pleasure, with delicate lavender flowers, or pure white, or rose-coloured.

In the same neighbourhood, to wit, within the lately renovated Apothecaries' Physic Garden in Chelsea, may be seen a magnificent specimen of the *Wistaria sinensis*, showing how nobly this magnificent climber will thrive, even in the climate of London. Yet of all the myriad house fronts within the radius of a mile of this spot, I can only point to one, besides my own, upon which a *Wistaria* has been planted.

The last wall plant that I shall mention as suitable for London is, strange to say, a conifer. Strange, because one might attempt to grow pineapples in Franz Josef Land or mangoes in Labrador as hopefully as any of the fir tribe in London, except the Salisburia. It is a deciduous pine with leaves like a gigantic maidenhair fern. It wants the protection of a wall in London, for the upper branches die back poisoned when grown as a standard—witness the specimen which stretches over the wall of the Apothecaries' Garden, or another, equally tall, beside the main street of malodorous Brentford.

Trained on a wall, the quaint Salisburia affords a covering as interesting as it is beautiful, and, unlike every other resinous plant, does not seem to resent *ce fameux fog londonien, qu'on ne coupe pas précisément d'un couteau, mais qu'on peut prendre à la cuiller.*

XLIV

On a Highland Loch

Physical enjoyment owes much of its zest to contrast —the transition from humdrum to lively—from appetite to gratification—from crowd to solitude—from wood-pavement to heather or meadow-grass. The mildew of monotony destroys the keenest pleasure; in no respect has civilisation wrought more potent effect than in rendering easy sudden change of environment. Thus it came to pass one sweltering afternoon in July that, elbowing my way through the throng of Cheapside, I was buoyed by the almost incredible certainty that within four-and-twenty hours I should be seven hundred miles away, in the great archipelago of the West—the realm of the Lord of the Isles. London folk were fussing at the prospect of a water famine; nevertheless, I packed my fishing-gear that afternoon in serene confidence born of long acquaintance with West Highland skies, which are wont to drop fatness in no niggardly measure. One of the chief merits of an infatuation for angling is the intense interest it imparts to meteorological prospects.

Sure enough, a welcome signal hung from the hill-brow as the yacht steamed steadily through the

narrows and opened the long vista of Loch Nevis. In a dark, rocky cleft scarring the green mountain, gleamed a silver thread, sure token this, that in the glen five hundred feet below, the river was in fishing trim. There had been rain, then; and here rain in July means grilse and sea-trout for all whom it may concern, and a 'happening fish'—an odd salmon or two.

It was half-past six before we picked up our moorings; a boat was going ashore at once, and there was time to secure a fish course for dinner on board. By seven o'clock I stood beside the Cruive Pool—where in the old bad days the fish were intercepted in their run—threading the line with trembling fingers along the trusty split-cane. The summer spate was well nigh spent, but there was 'a drop in her' still, and trout were rising in the dark run under the alders.

How little people understand the charm of Scottish climate who defer their visit till August or September, when the evenings shorten apace and grow chill! The true sweet o' the year comes in the mid-months of summer, when the light lingers long in the northern sky, when the deep meadow grass is full of humming things and starred with pink-and-white orchis, golden bog asphodel, globe-flower, and forget-me-not. The air is brisk, but warm; plant growth is just at the *crescendo* which preludes maturity and decay; and as for sea-trout fishing, nobody knows that delicate sport who has not practised it in July, because it is in that month only that the big fellows, from two to six pounds, pass up the rivers, and may be taken in the

prime lustre of their silvery mail. Later you may overtake a few of them in the upper reaches and inland lochs, but their brilliancy is then tarnished, and the dark skin seems to belong to a different species from the fairy-like creature which left the tide.

To-night, in the short hour at my disposal, nothing noteworthy occurs. In this pool, the nearest in the river to the sea, the big fellows have not tarried; it is tenanted by a shoal of finnocks—herlings, as they are called further south—the grilse stage of the sea-trout, lovely bright little fish averaging half a pound; and half-a-dozen of these reappear a little later as a savoury fry on the dinner-table of the yacht. To-morrow—ah! who shall tell about the morrow? The river runs out very fast; without more rain little will be done there to-morrow, and the sky to west and north wears an undesirably serene aspect.

When the morrow came the signal cascade had disappeared from the hill, whereby I knew that the river was too low for much sport. To my bow, however, there were two strings. The river runs out of a loch, on the loch is a boat, and in the loch store of salmon and sea-trout. Thither I wended my way, four miles up the glen.

Ah! such a glen. On either side tower the great hills, those on the south side still draped with gracious woodland, planted by no human hand. There is not a house in sight, nor sign of human creature, save the bridle path, and here and there a wooden bridge across the river. Yet there is never silence there—always the

sound of falling water from a hundred streams hurrying to the sea. To-day the wood resounds with a querulous cry; an eaglet, which has just left the eyrie on a crag among the birch-trees, yelps impatiently for food, and presently one of his broad-winged parents soars circling round the summit, a mere speck against the azure. It stoops lower and lower, till, with a final swoop, it alights near the nestling, and the cry is stilled. As far, however, as I can make out through the glass, the old eagle brought nothing but its own presence to satisfy the impatience of its offspring.

Now loch-fishing, to be practised in perfection, should be done from the bank or by wading. The rush of the good fish from the shallow to the deep water loses half its hazard, and therefore half its excitement, when the angler can follow it in a boat. I was resolved, therefore, to trust to my legs, and, in starting, alluded disparagingly to 'any duffer' who cared to fish from a boat. But four miles on this blazing morning seemed to carry one to a different standpoint. It is not refreshing to bury perspiring limbs in stuffy waders; the water rippled attractively against the side of the boat; suppose I were to try a drift first, and take to wading later when I had got cool.

There was very little wind: just a light draught from the east down the glen; enough, and no more, to turn part of the dark mirror to frosted silver. Our first drift took us from the boat-house to the point where the river leaves the loch through a rocky gorge. Nothing happened for the first half-hour; I was on

the point of observing to the gillie that the breeze was too light and the sun too bright, when there was a sudden commotion of the surface near the flies. A good fish, but he had missed; I cast over him again; this time there was no mistake; he fastened firmly and spun away into the deep, dragging the top of the little ten-footer into the water. Luckily, I had a boat; had I been fixed on shore, he must have run me out at once, for the casting line was very fine, and 'holding on' was out of the question. The game goes on so long and so deep that I begin to suspect I am into something of the nature of 'a fish.' 'Likely enough,' mutters some Sassenach, who honours me by reading these lines: 'what does a fellow who goes a-fishing expect to catch but a fish?' Much, I reply; sea-trout, for instance, which in Northern parlance are *not* fish—a term of distinction reserved for *Salmo salar*. Presently all doubt was settled by this fish springing high in the air at the end of a dangerously long line, and revealing himself a small salmon of six pounds, clean run from the sea. As he made one of his final runs, a foolish little yellow trout seized the bob fly, and gave me the satisfaction of landing, for the first time in my life, a salmon and a trout on the same cast.

After this the breeze freshened, and sea-trout began to look up; but even a three-pounder, fighting for liberty and life in the headlong, untiring way that only a sea-trout can, seemed tame compared with the dignified, masterful manner of the salmon. I longed for another tilt with the nobler quarry. The chance came,

but it brought gnashing of teeth with it. It was at the opposite end of the loch, where the principal feeder comes down the mountains and enters the loch in a broad bay with many sand-bars. Here a salmon rolled up, and like the other, missing the first time, took firmly the second, and was fast. Alas! 'we only met to learn how hard it was to part.' Something happened; the rod sprang up; half the cast with one fly, instead of three, dangled loose in the breeze.

I have sounded all the depths of woe within reach of an ordinary existence: believe me, there is no anguish like that which follows the loss of a fish by fracture. For every breach of the Decalogue the common sinner may be shriven; but for the clumsiness or carelessness which allows a fish to break tackle in clear, deep water, there is endless penance of self-reproach, and there is never absolution.

August

XLV

The Monster of Loch Arkaig

Every solitude in these islands has been searched, every corner pried into, every yard of its surface ransacked by busy specialists; there remains very little of that mystery which it is the pride of science to dispel. I confess that in the past I have been superciliously incredulous in regard to a shadowy monster known as the lake-horse that is reported to exist in certain sheets of water in the Highlands. The Celt is famous for his agile imagination. It is interesting to listen to the yarns of stalkers and fishermen; but stories of the Witch of Ben-y-gloe, of water-kelpies and bogles, of fairies, dreams and warnings, appeal but feebly to the coldly calculating Saxon. Viewing the lone waters of a Highland loch, the southern traveller is far more apt to speculate on the best pattern of fly or minnow wherewith to capture the trout in its depths, or to calculate the water power available for the creation of electric instalments, than to ponder on the legends of abnormal creatures peopling its depths. Nevertheless, a friend of my own, far above suspicion of exaggeration, whether intentional or unconscious,

The Lord of the Forest.

having borne testimony to the apparition of an animal one evening lately in Loch Arkaig, the question propounded itself whether there may not exist, in that profound abyss and others similar to it, living things of which the nature cannot be precisely defined.

Loch Arkaig lies in one of the loveliest solitudes of Lochaber, an expanse of water some thirteen miles in length, winding from east to west among the mountains composing Lochiel Forest, and connected with Loch Lochy by the brief and tumultuous torrent of the Arkaig river. For several miles the steep, south shore, shadowed by the crests of Beinn Bhan and Gulvain (3224 feet), is dark with the native pinewood, one of the few shreds remaining of the forests which once covered ancient Alban from sea to sea. On the north shore, where Glasbheinn (the Green Hill) and Beinn Chraoibh (the Tree Hill) slope fair to the sun, a broad belt of oak and hazel, planted by no human hands, reflects its changing beauties in the lake. There is no landscape in all the Highlands known to me—not even the much-frequented Trossachs—which combines more perfectly loveliness and grandeur, or displays more lavishly the charm of mountain, waters, and woodland.

Well, in this loch is good store of trouts, both lively fellows of one pound and two pounds to keep the fly-fisher alert, and those overgrown specimens of their race which were in old time dignified by specific rank under the title of *Salmo ferox*. I have known one of these taken on the minnow of the weight of twenty-

three pounds, and to my own rod has fallen one of the respectable figure of seventeen pounds and a half. Pike also there be, reputed of important size, but of these the fastidious angler takes little heed, *mai guarda e passa.* Beyond and besides these, which might build the reputation of any vulgar lake, the few dwellers on these shores profess to have knowledge of a monster, rarely seen, of dread proportions and mysterious powers —the *each-locha* or lake-horse.

The account given by my friend of what he saw is as follows (and let me repeat, he is an *old* friend, and of that nature, character, and unemotional temperament that no degree of *scepsis scientifica* affects implicit belief in what he says). It is as though I had seen the thing myself.

Well, on a fine evening lately he was returning down the loch in a steam launch. Not a breath was stirring, the water was perfectly calm, when, on the starboard bow, about ten yards out of the boat's course, he saw a creature come to the surface, struggling, apparently, with something which was not visible to him.

'What's that?' he asked two persons who were beside him; they saw the object distinctly, but could not answer his inquiry. He then called to his host, the tenant of the forest, who crossed from the port side just as the boat came abreast of the animal. He did not see it, for at that moment it disappeared beneath the surface, but he saw the waves caused by its movement, which crossed those caused by the launch.

That is the whole story; but I submit that, having in mind the unimpeachable character of the narrator, his

long and intimate acquaintance with Scottish sport and wild nature, it is worth putting upon record, if it were only as a warning against the subjectivity of ocular evidence. The *each-locha* is a current tradition on the shores of Loch Arkaig; there are several persons living reputed to have seen it; therefore, when a middle-aged gentleman familiar with country sights and creatures, suddenly sees, in the very haunts of the monster, a large animal which he does not recognise, the inference does not seem strained that he has beheld what the natives call the *each-locha*. Mark you, he did not tell me that he had seen the genuine monster; he only described to me the impression made upon his eyes by what he did see—that of a large, unknown animal. I have received from an Irish gentleman a minute discription of a living toad which he saw taken out of a block of solid stone in a quarry. Nothing was further from my suspicion than any attempt at gammon upon his part; he simply told what he believed he saw, but I didn't believe for a moment that the toad had really come out of the stone. But in the Loch Arkaig case, I confess to having leant to the belief that there might be some reality in the water-horse after all. However, the pleasing illusion was created only to be dispelled. A certain stalker was on deck at the time and saw the animal. He is a Highlander, and lives on the shore of the loch; if any one might be found to take a sensational view of the occurrence, here was the man. Questioned about it several weeks afterwards, he replied in perfect matter-of-fact:—

'It was an otter. I saw the beast long before the gentleman did.'

'But didn't you hear him describing it afterwards and wondering what it could be?'

'Certainly I did; he thought it was the *loch-eacha*.'

'Then why did you not tell him what it was?'

'Oh, just because he never asked my opinion.'

The incident is disappointing, but it is useful; showing how largely the psychical element must be taken into account in weighing ocular evidence.

XLVI

In Highland Waters

Were I asked where summer could be seen at its fairest, I should name the West Highland Archipelago. A Scotsman's prejudice, does some one say? Yes, but though a Scotsman, pray remember I am no Highlander, but an unmitigated Saisneach, which is the Highlander's name for anybody who lives south of the Highland line, and implies much the same degree of contempt as Tippoo Sahib threw into his memorable aphorism—'A dog, a pig, and an Englishman are brothers of the same family.'

Of course, summer is not exactly a synonym for fine weather in the West Highlands; there is sometimes what the natives call a 'wecht o' weet' to be got rid of, a transaction which may take hours, days, or even weeks, and most people postpone their visit till a period of the season when there are accumulated

arrears of wet to be liquidated. But a spell of such weather as carried us through last July (1898), it would be impossible to beat—hard to match anywhere. I have never been to the West Indies, but I have sampled the climate of Athens, next to which I commend the Italian Riviera east of Genoa (far more delicately limpid than the western Riviera); the air of the Engadine is exhilarating, that of Norway in June is divine, and early summer on the Loire is not amiss; but for downright loveliness—for dewy sparkling mornings—for basking noons which parch not—for long-drawn gloamings lingering into the brief lucid night of the north—give me, in July, the western land pierced with long winding inlets from the ocean, the mountain purple with heather on its seaward face; on its landward aspect falling sharply among green lawns and grey cliffs, feathered with birches, into the secret glen.

These—were there nothing to boot—these, the memory and the love of them — were enough to make any one who has not tasted their delights spurn London as men fled of old from the cities of the plain—enough to nerve any one to encounter that intolerable jumble of tides off Ardnamurchan—so he might reach the Happy Isles where letters come but thrice a week in fine weather, and in foul weather not at all.

But there is more than these. Believing, as I must and do, that the only worthy, blameless, and altogether honourable ambition of man is the capture of salmon and trout with the artificial fly, and seeing that the West Highlands abound in streams and lochs greatly

frequented by these fish, how much to be blamed were I if any minor considerations of mere business prevailed to delay my access to the land of the Gael? Nevertheless, a fisherman's notion of fine weather is not exactly identical with that of a lover or a landscape painter. The cloudless skies of July and the wide mirrors of the lakes do not perfectly fulfil his ideal. He sighs for the cloud low on the hill, the sough of the south-west wind on the shore, the burns racing in milky garlands through a hundred little glens.

The last sun of July sank in splendour behind the steepled crests of Rum. Waking on August 1st, my ears were full of sound, the silence of many weeks was broken. The mountain opposite the window was blotted from view; in the foreground the ash-trees waved their arms and whimpered in the breeze. It was raining—not heavily, but steadily. My plan was perfected in three minutes, two of which were spent in such hesitation as the donkey feels between two bundles of hay. There was a river within a quarter of a mile of my bedside—a river which had tinkled trivially among its shingle for a month past, but one which four hours of good rain would put in fishing trim; a river from which, even during the drought, I had extracted sundry lovely sea-trout; a river in which I had descried many salmon sulkily sheltering from the heat. Throughout the whole of July this stream had swollen but once: 'A wee bit o' a spate,' as the head stalker gloomily observed, 'just snappit up by the Sabbath.'

The sensible course would have been to breakfast

leisurely, and then stroll down to this river. But when an angler scents a spate, he ceases (at least, this one does) to be a reasonable creature. The unknown—the unknowable—lies before him. He packs up about four times as much tackle as he can possibly require, eats about half as much breakfast as he ought, twice as fast as he ought, and goes forth to encounter fate. Even so, he may fare prosperously; but woe! woe! unto him if he has two rivers to choose between.

On this occasion, as I have indicated, one river flowed close at hand. Past experience was there to testify to its excellence; anybody but a born fool would have been content with it. 'O, Pigg! hambition is a fearful, a dreadful thing,' exclaimed Mr. Jorrocks to his huntsman at the crisis of his fate, and it was ambition that led me into misfortune on this first of August. Parallel with this near river, of which I knew every pool and cast, four or five miles across the hill there runs another river, which, until this day, I had never fished. Report ran that it was marvellously prolific, and that its fish, which seldom saw a fly, were of childlike simplicity in the matter of rising when they got the chance. The Evil One was at hand; he always is on such occasions—at least, one likes to think it is not innate stupidity which sends one wrong. 'Look here!' he whispered, 'don't you go and throw away this chance. Don't be deluded into wasting a day on the Amhuinn Aoidh. Be a man! Never mind the four mile walk out and in; off you go to the Guseran, and you won't repent the extra fatigue.'

Well, I went there. I trudged across that steep four miles (four!—I believe if the kinks were pulled out of them they would be nearer fourteen) with that burning impatience which makes one's boots feel like 4-inch guns. At last I stood beside the vaunted Guseran. 'She' was still small—contemptibly, ridiculously small—not having quickened, as yet, to the rainfall; but there are some deep, black pots among the rocks, where salmon and sea-trout harbour in the lowest water. My gillie recommended a 'Popham' or a 'Jock Scott' of the smallest size. See how that schoolmaster has been at work! Thirty years ago, when I first knew Highland streams, had any profane Southerner offered to exhibit such meretricious lures, he would have been made to learn his place, and been looked on as a likely candidate for a berth in the county asylum if he had put up anything more gay than a brown mallard or dun turkey wing. Now the local authorities are just as dogmatic in the other direction: nothing will attract 'our fish' but the most vivid confections of scarlet, blue, and gold.

With exemplary docility, I mounted a tiny Jock Scott, with a Pennell hackle as a dropper. Here and there a sea-trout flashed up as if to frighten the intruder; presently a fellow of about a pound, turning sharply from the dropper, impaled himself on the double hooks of the Jock Scott, dashed about the rocks in fine style, and was landed. Then the river was seen to be swelling; it had been strange if it did not, seeing that a close sheet of warm rain had been falling since

early morning. Black streaks of rock on the hillsides became hissing cascades.

'If this rain continue to fall,' said my gillie in the elaborate language of the English-speaking Gael, 'she will fish properly in about an hour, whatever.'

He underrated the sensitiveness of the Guseran. I was perched on a rock full five-and-twenty feet above the largest pool on the river, where the current, chafing through a dark narrow channel, broadens suddenly and spreads with gleams of amber and silver to fill an ample basin, bordered with steep cliffs fringed with alder and mountain ash. Upwards of thirty sea-trout must have turned in succession at the flies as they twirled about in the eddies. I managed to land half-a-dozen of them, the largest being under two pounds; but I had my eye all the time on the foot of the pool, where the water draws into a steady flow, the very spot for a new-run salmon. I ought to have gone there at once. While wasting time with the small sea-trout at the top, I became aware of a rising turmoil among the rocks above. Presently the pool itself began to seethe; the spate was upon us. In ten minutes there was not a yard of fishing water within view; all was a tawny waste of angry, lashing waves.

Such has been my first experience of the Guseran—a paltry half-dozen of sea-trout; while my two companions who stayed at home to fish the Amhuinn Aoidh —well, comparisons are odious, and there is no need to emphasise my discomfiture by giving details of their success. It is bad enough to remember that the take

of each of them had to be reckoned in stones avoirdupois.

XLVII

The Purple Waterhen

The purple waterhen (*Porphyrio cæruleus*) was admitted by the late Lord Lilford to his gallery of British bird portraits on evidence which satisfied him that the species had bred in a state of liberty in Norfolk. Ornithologists in general, however, decline to regard this gallinule as more than an escape from captivity; but although it is a native of the Mediterranean region and the Persian Gulf, the fine bird seems to take kindly to our cooler climate, and probably requires little encouragement to become thoroughly acclimatised. It is a really desirable addition to our avifauna; its plumage, chiefly of rich violet with blue-and-green reflections, contrasts vividly with the carmine bill and legs; and its habits, by no means retiring, render it a conspicuous ornament on suitable sheets of water. But it is a voracious feeder; no small pond or brook would supply enough suitable food, and its manner of feeding is peculiar. One morning lately I watched a pair of them through the glass on our lake sanctuary, where they have made themselves quite at home since early spring. They have made their haunt in an extensive bed of *Scirpus lacustris*, that dark green, smooth rush, which in Scotland is erroneously termed bulrush, and a pretty mess they have made of it. They have beaten and broken down rushes to enable them to wade on a floating mass; standing on

this as a platform, Porphyrio thrusts his head below water, seizes one of the rushes in his powerful beak, and tugs at it till it comes up from the root. Now this is a very remarkable performance. To test the strength required, I attached a cord to one of these rushes, and hooked a steelyard to the cord. At a pull of ten pounds the rush broke at the cord, but the root part remained firm. This happened repeatedly; it seems difficult to believe that a bird not so large as a guinea-fowl standing on an insecure floating platform of rushes, can pull a weight of ten pounds, yet Porphyrio and his mate pulled up fifty of these rushes in my presence with a peculiar jerking motion. Well, having dragged it up, the bird passes it rapidly along with his beak till he arrive at the white succulent end; then seizing the rush, parrot-like, in one of his enormous red feet, he holds it up and nips away at the pith, eating very fast, and with as much relish, apparently, as unfeathered bipeds devour asparagus. The devastation of the rushes is appalling, and what these birds will turn to when they have exhausted the supply remains to be seen. Their flight is powerful, and the danger is that they may leave us and fall before the gun of some booby who shoots every bird that he does not recognise. *Scirpus lacustris* is not a common rush in the north, and possibly Porphyrio may have to put up with some inferior delicacy till the beds of that plant have recovered. Meanwhile these gallinules, with a bed of Monsieur Marliac's rose-coloured water-lilies floating

in the bay behind them, form quite a sub-tropical group, and make the native waterhen, itself a smart little bird, look quite dingy and insignificant by comparison.[1]

XLVIII

Water Gardening

On the subject of these Marliac hybrid water-lilies—we have had long enough experience of them now to pronounce them an important supplement to our hardy flora. Personally, I am of Perdita's mind, and prefer natural species to showy hybrids—'nature's bastards'—and none of these glowing or faintly tinted novelties exceed in beauty the common white water-lily, although some of them do so in size. But human fancy—'taste,' as we fondly call it in matters æsthetic—is capricious above all things. If the normal colour of a flower is pink, like heather, then we search diligently till we find an abnormal specimen with white flowers, and it does not seem to occur to us how dull the Highland hills would be if, at this season, instead of glowing with purple and rose, they were sheeted with white heather. So, although Nature has bestowed upon us our native water-lily, matchless in purity of hue and refinement of sculpture, we rest not till we have stained

[1] The subsequent fate of this pair of *Porphyrio* was grievous. After a happy summer-tide spent in the sanctuary, they seemed to scent the harvest fields beyond the woods. They flew out to the stubbles, and there they were malignantly catapulted to death by school-boys. I am thinking of consulting my solicitors whether there is anything in the Statute Book to prevent me turning a selection of she-bears into the woods for the repression of these school-boys. It is not on record that any proceedings were taken against Elisha.

its petals with an admixture of foreign blood. They are undoubtedly attractive, these new hybrids, the blossoms varying from pale rose to crimson, sulphur colour to flaming orange. Where there is plenty of room it is certainly worth while giving the best varieties a bay to spread in, and nobody has realised their beauty till he has seen them in an ample, natural sheet of water. I received several kinds in the autumn of 1893 from M. Marliac's establishment at Temple-sur-Lot; they were kept in large pots sunk in tubs in a cool house till the spring, when the tubs were put in the open air, and in the autumn of 1894 they were sunk, pots and all, in about three feet of water in the lake. The memorable frost of that winter—the most severe we are likely ever to experience in this country—put them to the test of hardiness. Some succumbed—partly, I fancy, because they were sunk in too deep water—but the rest are flourishing and spreading fast. Some of these new varieties prolong the flowering season long after the common white water-lily is past.

A great deal may be done—much has been done in many places—to supplement our native aquatic and waterside herbage. No lover of the country but looks forward to the month of the iris—our native yellow flag. I saw lately its American counterpart, *Iris virginica*, used with charming effect as a contrast to it in Mr. Chamberlain's garden at Highbury. This also is a water-loving species, and spreads as freely as our own; but its flowers, instead of golden, are violet and purple. Would that somebody with leisure and means were

inspired to prepare a monograph of the iris, such as Major Elwes has done for the lilies, and Mr. Hanbury is doing for the hawkweeds. It would form a gorgeous volume, for the blossoms of the different species are all beautiful, delicately coloured, and gracefully formed. It is, moreover, a peculiarly interesting section, on account of its wide distribution in both Old and New Worlds, its bewildering variety, and the peculiar adaptation of the various species to extremes of temperature and of wet and dry. In Britain we possess only two species—the yellow marsh iris above-mentioned, and the wood iris or gladdon, called also the roast-beef plant, because the leaves when bruised are supposed to smell like cold beef. This peculiarity hardly justified Linnæus in naming the plant *Iris fœtidissima*, an evil title for a herb that only smells when crushed, and then not offensively. A far more striking feature of the gladdon is the seed-vessel, which, splitting open in autumn, displays beaded rows of bright orange seeds as large as a pea. Londoners have reason to value the iris: the species *germanica* and *tuberosa* are among the few flowering plants that take care of themselves in the glare and dust of town gardens. Year after year masses of purple blossom are displayed in neglected corners, or make the squares gay with a fleeting glory.

Bamboos also supply infinite grace and luxuriance for the decoration of water margins, not, like the iris, to be planted actually in the water or marsh, but on a well-drained bank whence the roots may spread to the

moisture near at hand. It is curious how long it was before we discovered the hardiness of many bamboos in our climate. Mr. Freeman-Mitford's book, published only two years ago, came as an apocalypse to most gardeners, containing directions for the cultivation of upwards of one hundred species, nearly all as hardy as their relative, the common couchgrass. Of one condition all the bamboos are alike impatient—they cannot endure wind. Woodlovers by nature, they must have the shelter of trees around, yet a clear space overhead. When these are provided they take care of themselves; but there is one precaution insisted on by Mr. Mitford—in receiving young plants from the nursery, don't plant them out in the open at once. The roots are very sensitive and brittle; they are sure to have been bruised and broken in removal. Plant your purchase in large pots of good loam, and keep them for six months in a cool greenhouse. At the end of that time the pots will be found full of new roots; the plants should be planted out in May in the positions they are to occupy permanently, and will grow ahead without a check; whereas, if they had been planted out on arriving from the nursery, they would certainly have hung fire for a year or so, and perhaps never have recovered at all. The same consideration extended to many other exotics, notably the hybrid water-lilies, would save an immense amount of loss and disappointment. Thousands of costly plants are cruelly sacrificed every year for want of judicious treatment before they are committed to the open ground.

XLIX

Sea-trout

The spell of halcyon weather which lay over the western coast of Scotland for three weeks at the end of July and beginning of August broke with violent salvoes of electric artillery and prodigious deluge. The Scottish harvest not being so imminent as to suffer materially from wind and wet, we anglers rejoiced with clear conscience over a change which revived hope long deferred, and we watched the rising waters with feverish impatience for one of the liveliest phases of the fisher's craft.

'Soolky August' is the worst month in the salmon-angler's calendar. The Lammas floods often bring up great numbers of fish, but in most rivers they are very languid about rising to the fly until the cooler breath of September sets them in a brisker mood. But August is only inferior to a wet July as the sea-trout fishers' carnival. The chief run of heavy sea-trout generally takes place in June or July; this is succeeded in August by a multitude of smaller fish, averaging, say, half a pound in weight—corresponding to the grilse of salmon, and known in various districts as herlings, finnocks, whitlings, or sprods. So that in August you have the chance of mature fish up to five pounds or more, with the certainty of plenty of herlings—delicious fellows on the table—to keep you on the *qui vive*.

But to enjoy this sport in perfection a succession of good spates is necessary. Night-fishing with fly,

indeed, may be practised with profit even when the water is dead low—'a choice way,' as Izaak Walton observed of night-fishing in general, 'but . . . void of the pleasures that such days as these, that we two now enjoy, afford the angler.' Izaak was right. The cream of fly-fishing—the psychological moment—is the rise, and that is invisible in the dark. Nevertheless, the night hath charms of its own; especially a northern summer night, when the twilight, long lingering, almost joins hands with the dawn. Its beauty is less varied, but hardly less delicious than the day. On such a night there is nothing unfair or unsportsmanlike to take toll of the silvery shoals which work up with the tide into the lower pools, though the sport has a degree of sameness which makes it far inferior to daylight angling. On such a night lately, before the floods came, I bicycled over to the mouth of the Luce, a west coast stream much frequented by sea-trout. Arriving at seven, I was at least two hours too soon, for nothing can be done in the low water till the shadows have deepened on the scene. The river was but a dribble, meandering between great tracts of shingle, with here and there a still expanse denoting a salmon pool. I went down to the lowest pool, which is entered by the sea at high tide. What a tantalising scene! The water was alive with springing fish—big fellows of three pounds and four pounds—and lots of herling, while from time to time a salmon threw himself out and fell back with resounding splash. More than once I saw five fish in the air at the same moment. It seemed impos-

sible that out of this multitude there were not a few that could be induced to take a fly, if it were only out of sheer malice. But no! for two hours I plied them with all the resources of civilisation; result—a single deluded herling of half a pound. I got tired of it; wound up and returned to the watcher's cottage about a mile up the river, where I had left my bicycle. He was not surprised at my ill-success, knowing that hardly a fish will take before dark in dead low water. It was quite dark by this time, and he said I could catch as many as I liked if I tried the pool in front of his house.

There was not much art required. I cast my flies over the inky waters—a plunge, a short scream from the reel, and a wild dashing about the pool; my tackle was stout, and I held on firmly, and presently a two-pounder was scooped out, with the starlight glittering on his silvery coat. No need to change my position; sea-trout creep up in the lowest water into the pools. I could hear them rippling over the shallows. The sport goes on all the hours of darkness, ceasing about two in the morning. But it soon palls, and one longs for a tumbling spate to have the perfection of sea-trout angling.

A fortnight later I returned to the same place. What an altered scene! There had been a five-foot flood the day before, and the narrow, glassy puddle from which I had filled my basket under cloud of night was a broad, swift reach of foam-flecked, tossing water. I had two rods with me—an eighteen-foot green-

heart and a ten-foot split-cane. Neither was suitable, for a light fifteen-footer is the proper tool for *Salmo trutta*. But the water was big, and just as I was hesitating which to use, up jumped a clean-run salmon and decided me in favour of the big rod. The sun was intensely bright, so I selected two of the smaller grilse flies in my case—a so-called 'sun-fly,' with black silk body, and wing entirely of golden pheasant crest feathers, with a gay blue hackle at the throat, and for a tail fly a brilliant gold-bodied affair with a crimson hackle.

The first try over the pool was disappointing. No salmon or grilse looked up; several sea-trout flashed at the flies and turned away; only one of a pound came to bank. So, being at the tail of the pool, I resorted to a device which has often proved of avail when fish came short—I backed it up. It is such a useful wrinkle that, at the risk of imparting stale news, I venture to describe the process, because, strange to say, few anglers seem to resort to it. Standing at the foot of the stream or pool, you must draw out a long line, fling it to the far side, and step backwards very slowly up the bank, making a fresh cast as soon as the flies come to the near side. One advantage is that the line is thus kept without a belly in it, which is of much advantage in striking a fish. Then there seems to be some attraction to fish in moving objects which come over them from behind. At all events, I have often killed salmon in this way, which would not look at a fly coming down to meet them.

Well, these tactics succeeded. Three or four good sea-trout were in the bag by the time I stood again at the top of the cast—brilliant fellows, up to two pounds and a half, just out of the tide. But the salmon were dour; they kept rolling about, never giving an offer at the daintiest lures. 'Soolky August,' think I to myself, and exchange the heavy rod for the light one, for it must be confessed that sea-trout show a poor fight on a powerful salmon-rod. With a light ten-footer they fight splendidly, buzzing out the line and jumping repeatedly. But, after taking half-a-dozen more of them with the delicate gear, the temptation of giving the salmon a fair chance overpowered me, and for two or three hours I thrashed away in momentary expectation of the majestic summons of a 'fush.' It never came. At three o'clock I caused the gillie to turn out the contents of the bag. Exactly a score of sea-trout, weighing twenty-five pounds, was the tally.

Just then a farmer friend, who had been fishing above me, came down the water, and reported having raised a salmon twice, without accounting for it further. He told me my flies were too big for sea-trout, seeing that the river (which is one of those sensitive streams, all over the place to-day and dwindling into a thread to-morrow) had fallen nearly a foot since the morning. I told him to try his smaller flies over a lovely stream I had just been fishing. At the very first cast up came a grilse, fastened bravely, and in five minutes was hanging on the scale with the index at five pounds. 'Shall I try for his neighbour?' (good Scots for

'comrade') he asked. 'Certainly,' quoth I; 'and there he is!' I added, as a stout pull and vigorous splashing ensued in the sharp stream. However, it was not the true 'neighbour,' but a good sea-trout of two pounds.

One word to brother-anglers in conclusion. Don't let laziness or greed or anxiety to display a showy bag to your admiring home-circle prevent you from distributing your fish with a liberal hand. People who dwell on the banks of a river without the right of fishing in it appreciate a little attention of this sort, and you will be no sufferer by keeping them in good humour. Even if you are a stranger in the land, remember that in most of the homesteads that you pass the daily fare is humble and monotonous. A fresh-run sea-trout is no contemptible contribution to the poor man's table.

September

L

Of all the days of this memorable summer and autumn (1899)—the last to be recorded to the credit of the eighteen hundreds—none has been more delicious than one I have just spent upon one of the loveliest and least known of Highland lochs. This loch must be nameless, because, greatly solicitous though every one ought to be for the wellbeing of his fellows, a man hesitates to point the way to the few solitudes that are left in our land, lest some enterprising engineer should conspire with the sparse inhabitants—who seem to the lover of nature so seldom to know when they are well off and how to leave that well alone—and a light railway be the result. Be it enough, therefore, to indicate that this little inland sea runs, sinuous and profound, for some thirteen miles through the heart of a Highland deer-forest—one that fulfils more exactly the conventional idea of forest than the bleak wastes where the red deer must be usually sought, inasmuch as a goodly breadth of the primeval Caledonian woodland still clothes the mountain flanks on either shore. The north side, lying

The great Lake Trout

fair to the sun, carries a gracious mantle of oaks, to the height of between two and three hundred feet up the slopes; the south side, darker by reason of the shadowing mountain mass and steeper than the other, bears a great pinewood whereof the glades are lightsome with birch, rowan, and holly—the crags fired with the soft glow of blooming heather.

The long drought had given way; much and welcome rain had fallen; a hundred streams were hurrying down the heights on either hand in milky cascades, but the storm had cleared off; the kindly sun shared the heavens with the retreating clouds; and as I steered the little screw launch towards a point some three miles up the loch, where my companion was to be landed for stalking, methought that never had human eyes feasted on a more perfect scene of wood and water, towering hill, and falling stream. My own quest this day was not the deer, but a creature which many hours of vain pursuit have tempted faint-hearted anglers to pronounce mythical. All the scaly race—notably salmon and ordinary trout—are capricious enough, heaven knows, and subject to prolonged fits of inertia; but for sheerly unaccountable and perverse disregard of the choicest lures, commend me to the great lake trout. Once he was regarded as a species *per se*, and dignified by the title of *Salmo ferox*; better acquaintance with him, however, has convinced most anglers and naturalists that he is no more than a brook trout favoured by circumstance, sea-room, and an unscrupulous appetite till he attains abnormal proportions.

There is no better bait for these monsters than one of their own younger brethren; but on this occasion I had provided some beautiful dace and gudgeon, such as you may procure, perfectly preserved in formalin, from any good tackle-maker. One of each of these tempting morsels, duly fixed on Archer flights, was soon spinning forty yards astern of the launch, and decks were cleared for action. They *ought* to be so cleared, because when Master Ferox makes up his mind he leaves no doubt in yours as to his intentions. He means to have your fishlet, and when he finds it won't come off the hooks, 'By gum!' says he, 'but I'll just read this beggar a lesson. I'll run out a hundred yards of his line and then I'll smash him—see if I don't!' And down he dives into the amazing profundity of a Highland loch. Woe, woe unto him who hath a flaw in his tackle or an untimely kink in his line! He shall carry with him to the end of his days a weight of misery which only an angler knows; for is there any anguish so poignant and so enduring as the loss of a big fish?

And here the narrative of this day's fishing might be brought to a close. In spite of untiring diligence sustained for nine mortal hours—in spite of favouring wind and changeful sky—conditions which could not have been improved to order—not a single *ferox* thumped out his life on the bottom of our craft. It required the memory of bygone triumphs to assure me that the aristocracy of this loch were neither few nor small. Nine small trout, averaging not more than a

pound apiece, were dragged in remorselessly on the strong tackle, but once only did the stone placed on a bight of the line fly off sharply and the whirring reel betoken something important at the other end. This happened when least expected. We were crossing the loch to try a favourite bay on the south side; and when half-way across, where the great depth rendered such an incident most unlikely, a fish struck, engines were reversed, and the play began. The play was not amiss; it was lively, but it was not the dogged violence of *ferox*. It was but a grilse of six pounds newly run, which paid the penalty of an inquisitive disposition; good enough for the pot; far better indeed than the most corpulent *ferox*, but unsatisfying to nerves strung for a more heroic encounter.

Nevertheless, in spite of failure, that day will live in memory long after some of more solid results have faded. It was something to have been alternately steeped in sunshine and slashed with innocent showers; something to have persevered in cruising at the rate of three or four miles an hour without having to consider the aching arms and backs of a labouring crew; something, when the shades began to fall and my host's dinner-table was twelve miles distant, to reel up the lines, turn on full steam, and race home at ten miles an hour through the fragrant twilight. Then I had landed occasionally to explore tempting bits of woodland. The ospreys, immemorially domiciled on an island at one end of the loch, have lately established a new colony near the other end. They have made a

strange choice of an eyrie. Instead of building on one the great and ancient pines in the heart of the wood seven miles long, these fish falcons have selected a couple of puny, wind-warped young trees on the most exposed headland projecting into the loch. Here are two eyries, constructed on stems hardly fit to bear their weight. The birds have left the strath for the season, as is their custom in winter; but if they escape the myriad boobies who, gun in hand, infest our land, they will return without fail to the haunts where they have nested since a time before history began to be written.

LI

In Corrour Forest

A forest—yes, but not such a scene as the term conjures in the mind of a southerner. From where I lie in the September sunshine, high on the shoulder of Beinn Bhreach, some 3000 feet above sea-level, my eyes travel over a vast range of crests, ridges, peaks — the brown moor of Rannoch seamed with silver streams and set with gleaming lochs—a range that extends from the cone of Schiehallion on the south to the dome of Ben Nevis on the north. Much of this district—by far the greater part of it indeed—is 'forest' in a Highland sense; yet, from this point, at least, not a single tree may be discerned, be it not a few stunted birch and rowan, clinging to the scarped hill on the far shore of Loch Ossian. 'Forest,' in short, means ground reserved for the noblest of

In Corrour Forest.

British wild animals—the red deer. No doubt most of the ground in view was once forest in the sense of woodland. The whole of the soil far up the hillsides is full of sylvan wreckage—roots, stems, and boughs, chiefly of Scots pine (for we are too high here for oak), lying continuously for many, many miles as they fell; not rotting, because of the antiseptic properties of peat, still full of resin, and affording excellent fuel. Why did they die? or, rather, why did these trees leave no posterity? It is one of the most obscure problems of natural history, this disappearance of the Highland forest, and it would take too long even to recapitulate the theories started to account for it. The one, the only, thing that is clear is the result—namely, that of the dark evergreen mantle that once wrapped the great Moor of Rannoch and surrounding mountains not a rag remains, except in the wood of Dall; everywhere else the Scots pine is as completely extinct as the bears, wolves, and Caledonian white cattle which once harboured in the pristine woods.

It has cost me some pains to attain my present exalted point of view—literally, pains—physical suffering—such as those who must confess, not to old age—perish the ugly thought? but, let us say, to approaching maturity—such as those, in short, who have turned their half-hundred must encounter when they leave the streets and high roads (ay, and the luncheons and dinners) of civilisation and take to the wilderness. The couple of thousand feet or so which we have ascended since, some six hours ago, I left my pony

at the foot of the hill by no means represents the aggregate of 'foot pounds' which I have had to lift in the interval. First of all, the wind being south or thereby, we crossed a mile or so of about the roughest 'peat hags' I ever encountered, and then, profusely perspiring already, began ascending the eastern limb of the mountain, then worked along the comb of the ridge which runs between a corrie on the left hand and the northern face of the hill, falling steeply away on the right. The corrie was tenantless, but half-way down the eastern face, five hundred feet or so below us, we detected two good stags, and made a wide detour to approach them. But the wind played the traitor. Blowing steadily on the height, on the lee side of the hill, it was gusty and uncertain; a wandering flaw puffed up behind, and carried our scent—the hateful scent of man—to the grazing stags, still four hundred yards distant; their heads were up in a minute, and they went off at score.

Nowhere as in the forest does a man feel how inappropriate is the scientific definition of his species as *Homo sapiens*—Man the Wise. The stalker, if you like, is omniscient—*Homo omnisciens*—in his own domain, but for the mere sportsman who is committed to his care the only proper title is *Homo humilissimus*. He is led about on the steep ground, often without the slightest understanding of the plan of campaign, told when to stoop—to crawl—to run; the only responsibility upon him comes at the crucial moment of firing. A terrible moment of suffering it often is. A long

crawl down hill with head much lower than his heels, through bog and burn, till there is not a dry stitch on him, may bring him to the desired range; the rifle is thrust into his hands; he receives a hoarsely-whispered injunction to 'take him' (*i.e.* the stag) 'NOW!' With throbbing temples and swimming eyes he struggles into the nearest approach to a firing position which he can assume on ground sloping at an angle of forty degrees; and if he manages to hit the dusky form, one hundred or one hundred and fifty yards away, nobody is so much surprised as himself.

But other chances occur in which all the odds are in favour of the marksman, and such was the case on this day. About one o'clock we found a party of fifteen stags and a lot of hinds far below us on the western side of the hill, and spent about an hour stalking them. There was only one 'shootable' beast among them, but he was a very grand stag, and deep was my chagrin that long before we got near them something moved the herd, and they went off at a trot round the flank of the hill. Up the steep again we climbed; but we had not been travelling another hour before we saw the same deer, having taken up their position on the crest of a kind of pass between two hills. It was about as bad a place to approach unseen as could be. The ground fell sharply away on the only side which the wind would permit to be taken, very smooth, with no friendly gully or shelter.

What was to be done?

Well, my stalker said we must remain as we were till

the deer fed over the ridge; but, instead of feeding, they all lay down, so that plan failed. Scanning the ground anxiously, *Homo omnisciens* detected a slight wrinkle on the far side of the smooth slope below the deer. If we could only reach that, it led up to a small knoll within range. His mind was soon made up. The wrinkle could only be reached by descending the hill almost to its base, say fifteen hundred feet from where we lay, passing under a cliff to the other side of the smooth ground, and climbing to the same elevation on the far side. It seems easy enough on paper, but it involved a journey not less in distance than from St. Paul's Cathedral, by the Embankment, to Westminster, thence to the Marble Arch, and back by Holborn to St. Martin's-le-Grand—plus a descent and ascent of fifteen hundred feet.

It took us the best part of two hours, and the last quarter of a mile was the worst, for it was on all fours —an attitude which adult human beings now find it as difficult to maintain for long as their quadrumanous ancestors once found it was to abandon. Oh! those redundant luncheons—those superfluous *entrées*—that unnecessary nutrition assimilated in the sleepy south—how one repents of them in moments like these! However, all goes well, and here I am, inditing these lines within one hundred and forty yards of the big stag, waiting till it shall please his majesty to rise and give me a chance at his broadside. Through a pair of Zeiss reflectors I can read his very expression, the lazy content with which he lolls his well-antlered crest upon his

side, half asleep, yet half inclined to rise and begin his evening meal, as some of the smaller beasts have done.

It is very pleasant lying here before the westering sun. Of all moods of womanhood, I am assured (I speak not from personal experience) that none is so captivating as that of a shrew in good humour. Highland weather is often shrewish enough, Heaven knows—shrilly scolding in horrid blasts, and weeping profusely; but there is none like it when it is fine.

What a bloodthirsty, treacherous brute I am, lying in wait for that noble beast out there! Why can't I leave him to enjoy this peaceful evening? After all, if there were no such sport as stalking, red deer would long since have vanished from these hills; their lot is easier than that of most beasts of the chase; carefully preserved during ten months in the year, they are only persecuted during two.

At this point the big beast began to stir. Ah, drat those hinds moving before him!

Now he is clear—he rises and stretches himself broadside on. One hundred and thirty yards, I think, rather up hill—yet must I take a fine sight, for the Express throws high—crack!

Forty animals start together with one bound, and set off along the ridge, my stag among them. I have missed! No, he staggers—rears, striking the air with his forelegs—falls backwards, and in ten seconds is stone dead.

'You have got the best beast on the hill to-day, whatever,' observes *Homo omnisciens*, as he strips himself for the 'gralloch.'

LII

Another Day on the Hill

The first glance across my window-sill this morning (September 29) revealed a changed world. Said window-sill is the respectable height of 1250 feet above the sea, but all around tower hills 2000 feet higher. Last night, when the sun set upon them, their summer verdure was altered no whit, the heather still carried a roseate flush; but this morning everything above the level of 2500 feet is white with thick snow. Presents itself, therefore, the ever-recurring problem, what clothes to wear in stalking—whether is it most endurable to suffer from too thick garments or to shiver in too thin? The problem, indeed, has been shorn of much of its complexity by that admirable invention, the 'aqua-scutum.' Light—it adds nothing perceptible to one's load; long, wind and water proof—it can be slipped over all or shaken off in a moment; soft—it has none of the hateful clamminess of the macintosh; in short, every hillman has pronounced the 'aqua-scutum' indispensable; and considering how much discomfort it has warded off, I should be wanting in common decency if my tribute to its merits were short of heart-whole. I left mine in a hansom one day last summer, and had to repair to the police Bastille upon the Victoria Embankment to recover it. On being asked, as usual, to declare the value of the article, 'Two pounds,' quoth I, not without compunction, well knowing that whatever were its *price*, its *value* was beyond rubies. The constable

shook it out of its folds—wrinkled, shabby, sub-fusc—it certainly looked a mean enough article. 'Full value, sir!' was his laconic comment as he handed it across the counter in exchange for the ransom of five shillings, which I paid with a light heart.

This morning, then, despite the snow, I trusted to the aqua-scutum, and donned clothes of medium weight. It was a right decision, as it turned out, for the clouds dispersed, and the September sun shone out in the forenoon with quite enough force to make me sob as we climbed along the steep face of Faich-chaol. It was blowing a whole gale on the top, but nothing except flaws and puffs reached us under the broad shoulder of Carndearg. Rendered into English, Faich-chaol signifies the narrow strath—not so narrow, however, but that the whole of Bloomsbury and Bayswater, with Hyde Park and Knightsbridge thrown in as a *dépendance*, might be stowed upon its ample slopes. As it is, once you have penetrated a mile into its recess and shut out from view the stalkers' house at the entrance—with its patch of precarious corn and its peat-stack beside the loch—not a sign of human presence or handiwork may be seen. Nothing but mountains, with brown sides and hoary crests, and far below—for we have risen a thousand feet—the loops and links of the torrent, winding among countless little meadows of vivid green.

Oh, those blessed moments of respite, when your stalker stops to spy! Oh, the gratitude with which you fling yourself beside him on the heather, trying your

utmost—yet, as you feel, without the faintest success—to look as if your temples were *not* throbbing as though they would burst, and as though your chest were *not* compressed with a band of adamant!

This time he spies to some purpose. Be still, O bumping heart! be steady, quivering hands! cease to flow, O eyes, not with tears, but with the sweat of my brow! and let me get the glass on these objects like insects on the mountain flank, a mile and a half in front of us.

Five—eight—fifteen deer, some grazing, some lying, below a grey crag in the full sunshine. There are two good stags there, so the stalker tells me, and in such cases I never dream of forming my own opinion. Many seasons have been added to the past—more than it would serve any agreeable purpose to reckon—since first I drew bead upon a warrantable hart, yet am I no nearer now to the power of discriminating between 'a good body' and a poor one. The quality of the head, of course, is obvious to any duffer who can squint through a glass, but to reckon stones avoirdupois at any distance greater than arm's-length transcends any perception that I have at command.

They are in a critical place, these deer. The only mode of approach is from above, and the air is flying in such capricious gusts on this lee side of the hill that it will be wonderful luck if they do not get our wind. But the attempt has to be made; we climb five hundred feet higher, above the snow level, then strike along the hill face again, and in half an hour are lying, not in

sight of the deer, but at a point well above them. The ground is very steep and rough here, and we begin slipping down feet foremost through the snow, careful above everything not to dislodge any loose stones. A small pack of ghost-like ptarmigan rise close at hand, the old cock uttering his peculiar note between a purr, a chuckle, and a crow. It is well they are not grouse, which would have flown down the hill, and the game would probably have been at an end. The ptarmigan wheel upwards, and no harm is done; when we arrive at a convenient ledge and peer over, there are the beasts still, about three hundred yards distant. The rifle is withdrawn from the cover, and the downward crawl is resumed; far more cautiously now and by inches at a time, because we can only trust to avoiding detection by means of the closeness in hue of our garments to the ground, and by reason that deer always keep a sharper lookout below and around than they do above them. Fifty yards is traversed in safety; suddenly a little squall of wind puffs up behind us; in an instant every deer's head is in the air; they draw together in a clump, looking anxiously around, then begin to file at a trot along the mountain side. The stalker thrusts the rifle into my hands.

'Put up the 200 yards sight,' says he hoarsely. 'There, take him, the second one—ah, he 's covered!'

An officious hind has interposed her carcase between me and her antlered lord; the herd turns down the hill, offering nothing but a lot of bobbing sterns, then suddenly wheel to the left, and lengthen out into a

string. They are cantering now, at a distance of fully 250 yards; the chosen stag offers a fair broadside, but so small that the foresight shuts him out of view as I press the trigger. I see nothing for the smoke—only hear the stalker rapturously exclaim, 'Well done, by ——! You're the right man in the right place, sir.'

Surprise, I candidly admit, was uppermost and first in my mind, and it was not till I stood beside a ten-pointer, shot fairly through the spine, that it yielded permanent place to pride; for it was a difficult shot, and, after all, one argues in such circumstances, although success feels uncommonly like a fluke, it cannot be entirely set down to that score.

Well, out of respect to ultra-humanitarians, I will not recount how, after crossing the ridge in the teeth of the gale, and lying for half-an-hour upon snow, and under fierce blasts of sleet and rain, a second stag, heavier and better than the first, was laid low; but I ask them to look on another scene, perhaps more to their fancy. My homeward path lay along the boundary of the sanctuary —a vast hill, whereon no foot of stalker ever comes, nor sound of rifle is heard.

After two hours of tempest, the sun had shone out once more and sent its level rays into a great corrie, wherein, through the glass, I could detect two herds, numbering in all several hundred deer. They were browsing peacefully or lying down, some of the young stags indulging in mock combats, the calves gambolling round their dams. What an aggregate of happy life, yet, had some people their way, field sports would be cried

down as disgraceful indulgence of the worst passions—there would be no more stalking, no sanctuary, no red deer on our hills at all. Wherein lies the offence? I suppose I saw six hundred deer of sorts that day; of these I shot two—a fair toll to take in return for the care bestowed by man upon these wild animals, which, moreover, he has delivered from their hereditary enemies, the wolves.

LIII

The First Breath of Winter

For weeks Highland weather has been at its fairest: morning after morning the mists had rolled away on the breeze or melted before the face of Phœbus, leaving that delicious briskness in the air suggestive of gentle effervescence. One had almost forgotten the feeling of being soaked and blown upon. 'Crawling'—a stratagem inseparable from stalking—had ceased to be more than agreeable exercise over a fragrant surface as dry and soft as a drawing-room carpet; what wind there was we courted as a refreshment, instead of cowering before it as a chastisement.

But the change came at last. Rising one morning early—it was the eve of S. Michael and All Angels—my eyes were greeted with streaming panes, my ears by the whistling of a mighty wind among the chimney-pots. My beat for the day was a high one, rising 2500 feet above the lodge, which, it should be indicated, stands 1200 feet above the sea. Yet it was not perceptibly colder, and a stranger might have been beguiled out in

summer clothing. It takes a little experience of Highland sport to adjust dress to remind one that if there is any wind stirring, it is always most violent on the tops; that temperature falls one degree for every three hundred feet of altitude, and that it is high up that the longest lying-in-wait generally has to be done. On the other hand, there is the danger of over-clothing: it is difficult to say which invites the severest suffering—too many clothes and too thick, or too few and thin. Luckily, as it turned out, I recognised the change of the season, and sought out a good old flannel-lined suit which had not done duty since last winter.

We took the hill in pelting rain. Our course lay up the bank of a stream, lately harnessed to the servile duty of providing electric light for the lodge, already swollen by the night's rain into an indignant torrent. A mile of ascent, and we were out of sight of dynamo, turbine, workshop, and all apparatus of man; massive mountains rose in front and on either hand; nor house, nor path, nor fence offended the eye; the crowing of an old grouse cock was the only sound save the rushing of the stream. Another mile—we had risen a thousand feet now—and we were spying a great corrie. Far up, just below the mist that drove along the mountain top, was a large company of deer feeding on a grassy slope.

Directly deer are spied the sportsman is reminded of his inferiority to the official stalker. Up to that point he may have maintained a degree of self-respect. He may have successfully veiled his distress in climbing inter-

minable steeps; he may have aped the careless confidence with which his guide examines fen and corrie, hill-face and crag—as familiar to the guardian of the beat as the chambers of a mansion to its housekeeper; he may even be as quick in detecting deer as the other; but as soon as they are detected, he falls into his place; he ceases to be an individual and becomes 'a rifle'—an automaton to be set in motion by the master of the craft.

After a prolonged inspection through his glass of the dusky objects a mile distant in the corrie, Donald pronounces three out of the fifty or so to be good beasts and 'shootable.' I am filled with marvel, as usual, at the power of discernment, little short of superhuman, it seems to me, which enables a man to pronounce the weight and age of a creature so distant that it looks like an undersized house-fly. I can tell a good head afar off; but if I say anything about it, I am generally told that it is accompanied by a poor body, and must not be shot. So I have learned not only to be dumb on such occasions, but to refrain from entertaining any independent opinion whatever.

Well, Donald, having decided that the beasts were worth stalking, set off on a *détour* of two or three miles, to arrive within business range of them. Hitherto it had been wet indeed—very wet—but the hill had given shelter from the blast; now, as we climbed the comb of the ridge, it battered us to some purpose. Bitter, bitter cold; as we mounted higher the rain changed to sleet, then to soft snow. Nothing to complain of, this, while moving briskly; the trial came when we reached the

upper rim of the corrie. The ground here was covered with loose shingle, boulders, and wan moss, scant cover for three hundred yards of crawling on hands and knees, which brought us again within sight of the deer; after that came a hundred yards—'on thy belly shalt thou go,' commanded Donald in effect, by doing so himself and wriggling along serpent-wise. To all his movements I conformed, with my nose close to his hob-nails. We were full in view of the deer now; the slightest irregular movement on our part and some vigilant hind would 'pick us up'; two hours' labour would have been wasted.

At last we came to a limit beyond which we could not venture. Donald whispered that we must wait till they fed within range. Now to wait thus in warm, dry heather—in sunshine—is by no means the least luxurious part of hill work. But here to-day, plastered prone on soaking moss, with a sharp stone digging into the pit of one's stomach, snow driving into and melting in one's ears, the wind piercing through wet tweed and flannel as though it had been *mousseline-de-laine* —the question presented itself, '*Is* this fun?' to be answered only in the words quoted by Whyte-Melville, 'It *may* be sport, but I'm d—d if you can call it pleasure!'

A pair of ptarmigan, indeed, strutting about among the rocks, purred their contentment with matters meteorological and otherwise; but who ever saw a dissatisfied ptarmigan? it is the very Mark Tapley among birds. More sympathetic seemed a small wisp of golden plover

which flitted past among the falling flakes; of all bird voices, their pipe is the most melancholy; but they went their way and left us flattened on unhappy stomachs. Still the deer lingered, moving forward but by inches.

I was beginning to wonder what might be the limits of human endurance short of congelation, when Donald, looking round, beckoned me with his eyelids to draw up alongside of him. Slipping the rifle into my frozen hands, he bid me take 'that beast—the dark one behind the four hinds.' My eyes were full of water born of sheer physical misery; I saw nothing but indistinct grey forms among grey boulders. At last, but with difficulty, I recognised the stag he meant—a fine, thick-necked fellow, broadside on, about one hundred and twenty yards off. I endeavoured to aim as I lay. Impossible! By no contortionist device could I attain a posture which did not completely prevent every chance of hitting the mark. Slowly I raised my numbed frame into a sitting attitude; before I could draw the bead they saw me; the good stag turned to fly, leaving nothing to shoot at but his haunches; but he had not increased the distance between us by a score of yards before the other deer, hitherto out of sight, came up out of the corrie and turned him. Now was my chance, and a fair one, could I only make use of it in my frozen state.

A steady aim at the stag's shoulder—a pressure of the trigger—and a miss! 'Make sure of him now,' whispered Donald, and certainly a fairer mark was never offered. Crack! I saw the bullet strike the

rocks in a way that showed me it had passed under the stag's belly.

He was gone! I had doubly bungled, but worse was to follow.

More deer were coming up the pass. 'There, take that one,' hissed Donald, cramming in a third cartridge as a noble stag ambled by. It was hardly such an easy shot as the first; still, it was one which there was no shadow of excuse for missing; nevertheless, missed it was.

Drenched and dispirited, I descended the hill, confirmed in my boding that deer-stalking is not all plums —an impression which a successful stalk and neatly killed stag in the evening has not entirely dispelled.

LIV

Creatures of Prey.

During a fortnight spent last year in Knoydart I devoted some inquiry into the survival of certain of the rarer British mammals in that wild region. Knoydart is the western moiety of Glengarry's ancient territory, which was once so finely explained to an English lord by the chief's stalker, Alastair Dubh, as they sat together on the summit of Corrie Glas. 'All that you see,' he said, waving his hands around, 'is Glengarry's'; but, of course, the crowded hill-crests concealed a great deal of the property, so he added, 'and all that you do not see, that is Glengarry's also!' There are Macdonalds still in the lonely Knoydart glens, though the soil has

passed into the power of the Saisneach. Among them there are those who still can tell of that day of sorrow, half a century ago, when the great chief, hopelessly insolvent, yielded up his vast possessions and passed forth an exile, or at least an emigrant, with three families of his clan, to cross the great water and seek subsistence in the new world. The chief died, and his line has failed; but many of his people prosper and multiply exceedingly beyond the sea.

After that the land was parcelled out in great sheep farms; the native woods, already sorely displenished by their needy owners, shrank still further up the steep ground, and the heather on many a hill paled away before the spreading grass. But soon the time came when sheep ceased to pay, and now great tracts are given up to deer, to the mighty indignation of those who would prefer a starving, compulsorily indolent population of crofters to the well-housed, well-clad, well-paid stalkers, gillies, and yacht hands who now occupy the holdings.

These successive changes, added to the development of grouse-shooting, which became popular during the second quarter of the present century, have told with marked effect on the wild life of the Highlands. Some species have been displaced, brought to the verge of extermination, while others have multiplied enormously. At the end of the century we are able to strike the balance of loss and gain from the point of view of sportsman and naturalist, and it is not so disappointing as some believe.

Before the days of sheep-farming on a large scale there was no inducement to destroy predatory beasts and birds—those animals which the gamekeeper classes as vermin. It is true that the right qualification for the title of sportsman was held in the Highlands of old to consist in having killed a royal stag, an eagle, an otter, and a salmon; but no systematic trapping or shooting went on except for the larder. Inasmuch, however, as foxes, wild cats, eagles, and ravens have a distinct partiality for tender lamb, it became part of the duty of shepherds to wage relentless war against these interesting animals. Then came the grouse preserver, whose keepers extended the list of proscription to include every creature of which the habits were open to the slightest suspicion. The trap, especially the cruel pole-trap, and gun were set to work on a scheme of extermination. In his interesting little sketch of Glengarry lately published, Mr. Edward Ellice gives the following list of 'vermin' trapped in the first-named glen between 1837 and 1840:—

*11 Foxes.
*198 Wild cats.
*78 House cats (going wild).
*246 Martens.
*106 Polecats.
*301 Stoats and weasels.
67 Badgers.
*48 Otters.
*15 Golden eagles.
*27 White-tailed eagles.
18 Ospreys.
*98 Blue hawks (sparrow-hawks).
*7 Orange-legged falcons (? peregrines).
*11 Hobbies.
*275 Kites.
*5 Marsh harriers.

*63 Goshawks.
285 Common buzzards.
371 Rough-legged buzzards.
3 Honey buzzards.
462 Kestrels.
78 Merlins.
*63 Hen harriers.
*6 Jerfalcons.
*9 Ash-coloured hawks (Montagu's harrier).
*1431 Hooded crows.
475 Ravens.
35 Horned owls (?short-eared owl).
71 Fern owls (goatsuckers).
3 Golden owls (? barn owl).
*8 Magpies.

Now in this truly remarkable list those species which may be properly classed as injurious to game are marked with an asterisk; perhaps the raven should be starred also. I have not found it in my heart to include the osprey; for, although he preys on fish, what sportsman can grudge this gallant bird the quarry he takes in such chivalrous fashion, swooping from the cloud to the flood? Buzzards, kestrels, merlins, owls—it is not too late to plead for them even now; and although they do occasionally learn vicious ways near the crowded pheasant pens, surely we know enough of their habits by this time to pronounce them absolutely harmless on grouse ground. Then the unlucky fern-owls, damned in the past by a series of misleading and injurious synonyms—goatsucker, night-hawk, fern-owl—it is only by rubbing in the truth, in season and out of season, that Cimmerian ignorance can be brought to understand that *Caprimulgus* is neither hawk nor owl, nor sucks the milk of any living creature, but is, in fact, nothing more terrible than a nocturnal swallow,

most beautiful and useful withal, seeing that he preys solely on flying insects, chafers, and the like. The stoat and the weasel are bracketed together; but if the former be handed over justly to the executioner, it is base ingratitude to forget the services of the latter, which is by profession mouse- and vole-hunter. Golden eagles may be reckoned out of danger. In many deer forests they are now strictly preserved; for although they do occasionally drive a hind or her calf over a precipice, striking at her with their mighty wings, there is plenty of provender for these noble birds as long as ptarmigan and blue hares abound. Moreover, they have not a stomach too proud for carrion. The white-tailed sea-eagles have not fared so well. They are more apt to fix an eyrie on a sea cliff, open to all who have nerve and a rope, and this species is far less common now than the golden eagle. Perhaps the most notable features in the Glengarry list are the jerfalcons, goshawks, and kites. The goshawk bred in Strathspey when Colonel Thornton was there in 1786, but the occurrence in North Britain of a single specimen of any of these three birds of ravin is now among the rarest of events.

Vanishing land mammals formed the subject of a recent paper in the *Edinburgh Review* (1898), the writer indicating wild cats and polecats as the next animals to follow bears, wolves, and wild swine to extermination in Britain. I believe them to be in less peril than they were before the extension of deer forests. These great solitudes, especially those which

contain fragments of the old woodland or tracts of modern plantation, afford harbour for 'vermin' which, in a deer forest, it is nobody's interest to destroy. Small game, such as grouse and hares, are not encouraged on stalking ground, neither is it desirable to disturb such ground by the operations of trapping. Hence, both the true wild cat and the marten are actually increasing in Knoydart, which abounds in steep, shaggy hillsides, clothed for miles with indigenous birch, alder, and a few pines. It is only accidentally that a marten occasionally gets into a trap set for rabbits or others; no man knows how many there may be, for instance, in that wild thicket, the Bachd-an-vich-tosaich (wood of the chief's son), which runs to the height of over a thousand feet on the pass between Loch Hourn and Loch Nevis. Last winter only one chanced to fall a victim, for the stalker told me he was at pains to avoid killing martens, and the beautiful fur of this one suggested wonder that no Highland proprietor has adopted the suggestion for a fur farm, which was thrown out a couple of years ago by a writer in the *Spectator*. The prodigious price given in open market for marten skins ought to ensure a profitable return on the outlay of fencing and tending the animals, which require no more elaborate diet than their cousin the ferret. Polecats or foumarts appear to have become really extinct in this region, though they still linger in others less wild and remote; but as the polecat is identical with the domestic ferret, no difficulty need be experienced in restoring the species if desired. The albino variety of polecat is usually preferred as a

ferret by gamekeepers; the wild type is the brindled kind.

As for wild cats, I examined the skins of six which were taken during last winter (1897-98). They were all of young animals, nearly full grown, kittled in a wood not far from the lodge, but could scarcely be mistaken for domestic cats gone wild. The short, dense tail, closely ringed with black, and the beautifully 'tabby' fur, warmed with russet inside the flanks, combined with the great size of the skins, seemed to indicate that they belonged to the true *Felis catus*, and that if any cross had taken place with *Felis domestica* (itself only a mongrel descendant of the wild cat), the foreign strain had been completely worked out, and reversion to the original type completed. Unluckily, these fine skins were swarming with moths, and were utterly ruined. Moreover, the heads unluckily had been removed from these six skins; and as none of the bones had been preserved, all that it was possible to affirm upon the evidence was the probability that in this remote wilderness, extending from Morar to Loch Hourn, the true wild cat was still to be found. It is well known to British naturalists that Dr. Edward Hamilton has entered very closely into the evidence bearing on the survival of this beast of prey in our islands, and has expressed an opinion that none remain unadulterated with greater or lesser strain of the domestic cat. On the other hand, it is equally well known that cats exist in certain parts of the Highlands, exhibiting all the signs in size, colour, and shape or tail of our

native catamountain, showing that the admixture of *Felis domestica*, if it ever existed in this race, has been bred out, and a complete reversion effected to the feral type.

Well, on leaving Knoydart I straitly charged the head stalker to let me hear of the first wild cat he should get. These animals are not trapped in the forest, which in Knoydart approaches more nearly to the southron's apprehension of that term than it does when used to express the ordinary deer ground of the Highlands; for Knoydart contains many leagues of shaggy hillside clad with birch, Scots pine, and other trees. It is only when a cat descends to the plantations near the lodge, or is taken in a trap set for otters, that a capture is effected. It was vastly agreeable to receive one night lately a telegram from my friend the stalker: 'Wild cat secured: please forward instructions,' and soon the reply was flashing back that it was to be sent to the Director of the Natural History Department of the British Museum. It is true that I was not without some qualms. Was the beast alive or dead? If alive, would he prove a welcome morning visitor in South Kensington? However, all turned out right; the poor catamountain would never scrunch the neck of another blue hare, seeing that its own skull proved to have been irretrievably smashed. This was unfortunate, because the bones of the head are important for the right identification of species; but doubtless it is a difficult matter to deal delicately with a tiger—even a British tiger—in a trap. I have received Dr. Oldfield Thomas's

report upon this animal, a fine adult male, as well as upon another, a young male subsequently secured, and both are pronounced to be indistinguishable from pure *Felis catus*. These skins are now safely lodged in the Museum at South Kensington.

LV

Decently and in order

On a wet September afternoon lately, it was my lot to attend a funeral in a remote part of the west of Scotland. Most of us, I think, must feel that in the ceremony of sepulture we have reached less near perfection than in any other social rite. It is associated in memory with a fussy undertaker—with rusty mutes like waiters suddenly turned out of a third-class restaurant into open day—with a hideous hearse, tawdry in everything but colour—and with a crowd clad in the ugliest garments that centuries of civilisation have evolved from the primeval fig-leaves. It may be thought that a Scottish funeral is even less satisfactory than others. Suffering as much as an English one from the barbarities of the undertaker's craft, it is also stripped of the solemnity of ancient ritual; earth is committed to earth in a silence that would seem heartless had it not a peculiar pathos of its own. Once upon a time the Church of Scotland was shaken to its foundations by violent disputes about the right way of shaving priests—from ear to ear over the pate, as Columba prescribed, or in a patch on the crown only, as was the practice of Rome.

But for three hundred and fifty years the Reformed Kirk of Scotland has enjoyed immunity from the miserable squabbling about prayers and vestments, postures, and lights, which at this day so deeply vex the children of her English sister—children who seem to be wasting half their playtime in disputes about the rules of the game. For that immunity the Kirk has to thank John Knox. When his flock at Frankfort-on-Maine fell to quarrelling about the rules of the game —surplices, audible responses, kneeling at Communion, and so on—and would not play according to *his* rules, he left them. Returning to Scotland, he took care that, however many and warm might be the disputes on questions of doctrine, there should be none within his fold on these external ceremonies, and he swept them all away. Clear and chill his stamp remains on the national worship to this hour. What though there be traced in populous places some timid renascence of ceremonial—display of gay university hood on sombre gown, praiseworthy intolerance of bad music? Did you want to realise the effect of Knox's work—the shuddering recoil from all semblance of sacerdotalism —you should have stood beside me on that September afternoon.

It was in grey Galloway—not grey, then, so much as green, for there, during all the months you in the south had been gasping for rain, the clouds had been dropping fatness; while your pastures were shrivelled to the colour and texture of bast matting, ours were lush and dank with herbage; while the tongues of East

Londoners clave to the roofs of their mouths, millions upon millions of gallons were rolling through our thousand glens, driving an amber stain across the azure of the firth.

There had been a death in the 'big hoose'—not one of the laird's own blood, but the nearest thing to it—the death of the aged housekeeper, who had seen three lairds in succession. By no social alchemy can such ties be woven as linked this venerable dame to the house she served for half a century, any more than flesh and blood can be built in a mould by nice commixture of phosphates, nitrates, cellular tissue, and what not. Served—yes, her sphere was service, but of that kind which acquires a strong blend of authority. The accident of primogeniture caused a boy born in such a house to become its master; but he would as soon have thought of cutting down his 'dule tree'—the immemorial ash standing beside the courtyard, symbol of the obsolete baronial right of pit and gallows—as of discharging the stately regent of 'the room.' Though not specified in his charters, she was as much part of his inheritance as hill and dale, pasture and cornland, woods and plains, moors, marshes, turbaries, watermills, multures and minerals, hawkings, huntings, and fishings, liberties and easements, parts and pendicles—*tam non nominata quam nominata, tam sub terra quam supra terram, tam procul quam prope.* Surer fixity of tenure it were not in the power of the legislature to bestow; but just as the 'dule tree' may yield to the gale some winter's night, so the old housekeeper

has gone down under the power before which all mortals must bow. No more the maids shall tremble under her rebuke; no more her stiff silk shall rustle in the long passages; no more shall she reckon her legions of white jars in which it was her pride to store the fruit of so many summers and autumns. She has died at her post, with the keys of office in her hand, and they are about to bring her out of the front door to her burial.

The scene is grimly simple. On the gravel sweep before the house are gathered a hundred or so of sable figures; all men, of course, according to the ancient but unwritten law which keeps women behind drawn blinds on these occasions. The laird is there, and some of his tenants, a few tradesmen from the village, and the fellow-servants of the departed. The fair park stretches away to the sloping woods, among which lies the lake —a broad silver shield—beneath drifting clouds. On the lawn, just behind the mourners, my eye rests on a suggestive, though inanimate, group of two. A tall grey pillar-stone, one of those disc-headed crosses of the early Celtic Church, covered with intricate ornament on every inch of surface, seems to repeat the message intrusted to it by pious hands a thousand years ago—the message of peace on earth and goodwill towards men. Close beside it is a very different object, charged with another message. This also is ornamented: it bears the Russian eagle, for it once formed part of the armament of the Great Redan of Sebastopol, peace and goodwill among men being scarcely the

cause of its transportation to this distant island. What a space of centuries is covered by these two memorials! Has the message of the first been a failure? If not, how explain the scale of our annual war estimates? What connection with either has the Tsar's pacific rescript of yesterday or President Kruger's bold defiance to-day?

This train of vague musing is interrupted by the appearance of the minister on the steps, bible in hand. He wears no gown; and though his white head is bare, we remain covered while he reads a chapter from the Old Testament and another from the New; but when he closes the book, we all doff our hats while he offers an unwritten prayer. We have no ritual in Scotland—we are inclined to plume ourselves on that—but not the less are we scrupulous to conform to etiquette, custom, or whatever it is that prescribes exactly what to do at each part of the ceremony.

The prayer over, we get into carriages of various kinds—'machines' we call them here—and, forming an unpretentious procession, wind slowly down the approach, out among the recent stubbles, through the little seaport town, where flags drop at half-mast on the few craft in harbour, and so for some miles to the solitary kirk with its green fold under the sighing ash-trees. Green and grey—those are the dominant tones in the landscape; and so we lay the grey hairs under the green turf, and part, with no more said.

October

LVI

THERE can be no true lover of nature—no sportsman in the right sense of the term—whose heart has not bled for the suffering inflicted upon wild creatures by traps. Of all the sights which one encounters in a woodland walk, there is none more pitiable than that of a rabbit writhing in anguish, with crushed limb and bleeding flesh, in the jaws of an iron trap, or crouching low in the terror that overpowers all other torment. Trapping is a dire necessity: it is the only permanently effective way of keeping rabbits within reasonable numbers. Snaring with wire nooses is more merciful, for the creature is generally throttled outright, and it answers very well for a while; but after a few days it scares the rabbits from their runs, and the game is up. The invention of a painless trap has long been the dream of many owners of game preserves; and Colonel Coulson of Newbrough, Fourstones-on-Tyne, has sent me a sample of one, invented by himself, which goes a long way to realise what is desired. This trap is the same in every respect as the ordinary one, save that it has no teeth. Instead of

Trap reform

teeth there is riveted inside each of the jaws a stout strip or pad of corrugated rubber which gives quite as secure a grip as teeth, without lacerating the skin or smashing the bones.

The next thing is to persuade gamekeepers (a most conservative race) and trappers to use it. Some of them are sure to find objections to it; but others, it is certain, will gladly adopt an invention which rids the business of a trapper from some of its most unpleasant features. John Newbiggin writes as follows:—

'For thirty-six years I have been gamekeeper at Nunwick to the Allgood family, and have trapped more rabbits probably than any man in Northumberland. I have tried Colonel Coulson's rabbit-trap for nearly three weeks. I never thought it possible that such a trap could have been arrived at. It holds firmly without piercing the skin. I laid out rabbits that had been caught in it and the old "gin." In the former there were no marks, while those caught by the "gin" had broken and pierced legs. I consider this trap a thoroughly humane invention, and am much taken with it.'

My own gamekeeper, whom I desired to test one of these traps, reports: 'I have now caught over a dozen rabbits in the new trap without one of them having a broken leg; and even the skin of the leg was not broken.' These are expert opinions, and ought to put the old and barbarous gin out of use in all establishments where there is the slightest pretence to humanity. It is not likely, indeed, that trapping will be rendered thereby absolutely painless to rabbits. Probably it is the anguish of terror which inflicts the keenest suffering

on a wild animal suddenly trapped. It is known that human beings who have been mangled by lions and tigers have declared afterwards that they were unconscious of physical pain at the moment. But at least Colonel Coulson's trap inflicts no traumatic injury; the animals are captured in better condition for the market or the larder than by the common gin; and, if the inventor cannot expect much gratitude from the immediate objects of his consideration, he deserves to receive it from dog owners, who, when their favourites accidentally get caught, will have no more smashed bones and bleeding feet to mourn over. I hope that Colonel Coulson's trap will receive the attention it deserves, and get a fair trial.[1]

LVII

Autumn is upon us, and among the many familiar harbingers of cooler days and lengthening nights may be noticed one visitor which used to be reckoned exceptional, and has always been capricious in its appearance. The clouded yellow butterfly (*Colias edusa*) was formerly reported at long and uncertain intervals, suddenly appearing in the autumn of certain seasons in considerable numbers. It is believed that none of the chrysalids survive the winter of these islands, and that these occasional autumn

Autumn Flowers

[1] The makers are Messrs. Tinsley and Co., Old Hill, Staffordshire, and the traps cost about fivepence each more than the ordinary toothed gins.

flights are the progeny of parents blown hither from the Continent in spring. But the visits of the clouded yellow seem to be getting more frequent: we had this fine insect in abundance all over Britain in 1892, again in 1895, last year in smaller numbers, and now once more, in 1897, it is dancing over the turnip fields in the west of Scotland. Is it possible that it has come to stay, and may hereafter be reckoned among our resident species?

More obvious to casual observers than the signs of departing summer offered by insects are those apparent in the annual movement of the bird population. The cuckoos and nightjars have departed; but just now the land is full of innumerable wheatears leisurely moving south. Every cyclist must surely have noticed those charming birds, flitting among the roadside fence, perching in front of him, whisking off with a flourish of gleaming white tails at his approach, to alight again only to repeat the same manœuvre times without number. Here, in Scotland, the wheatear has nothing to fear from man; a nation of farmers ought to be only too glad to welcome flocks of this beneficent insect-eater, but I am afraid a heavy toll is taken when the flight reaches lower latitudes. The shepherds of the South Downs snare hundreds of them for the market. Yarrell quotes the Linnean Society as authority for the statement that upwards of a thousand have been taken in a single day by one shepherd, and in Pennant's time the annual bag near Eastbourne was reckoned at twelve thousand. Still, it cannot be said that there is any apparent

diminution in the numbers passing through the island, and this year these seem to be even greater than usual.

In the garden no season is more charming than the present. Spring flowers may be fairer and more precious, summer blossoms more lavish, but none more varied or more richly coloured than those of autumn. Perhaps our gardeners are at special pains to prepare a feast of colour for those who choose to forgo the delights of the country life till summer is past. This was the excuse for the bedding-out *furore* while it lasted; but now that this, happily, has worn itself out, it is found that the once despised 'herbaceous stuff' is quite as capable as the other of affording a brilliant display in September. The post brings plenty of nursery and florist catalogues just now, and the man with an eye to future seasons may do worse than take one of these in his hand and compare the descriptions given with the actual effect in the borders.

The most gorgeous blossoms in the autumn borders are undoubtedly those of the Japanese golden-rayed lily, and it is right to recruit the stock of these each year; for no amateur known to me, save Mr. G. F. Wilson, in his wonderful garden at Weybridge, can reckon on more than ten per cent. of the bulbs remaining vigorous after flowering. Mr. Wilson's secret—or is it his soil —or a combination of both?—enables him to grow and propagate these splendid lilies as abundantly as a common man might grow hawkweed; he has many imitators, but no rivals in success. Only this—try and

get homegrown bulbs, even if they cost you twice as much as imported ones, and insist on having the robust variety known as *Lilium auratum platyphyllum.*

Torch lilies (commonly called 'red-hot pokers') are of many species, and by careful selection the flowering season may be arranged to extend from August to the first hard frost. Strange that a native of Africa should be as much at home under our cloudy skies as any common flag. The blossoms of all the torch lilies have a strong family likeness, varying slightly in fiery tones. For some recondite reason it has been decreed at Kew that the whole genus hitherto known by the easy title of *Tritoma,* shall in future answer to the awkward name of *Knifophia* or *Kniphofia*; but as I have forgotten how to spell the new name, I must continue to use the old one for the present. The dwarf *Tritoma Macowani*—a charming species—has flowers of soft red; the largest kind, *T. nobilis,* is also the latest to flower, and should have a warm, sunny border under a wall, so as to coax it forward. The handsomest in foliage is *T. caulescens,* with a yucca-like crop of glaucous leaves growing from the top of a thick stem, and flowering earlier than the rest of the family. Talking of yuccas, how much too seldom are they grown. *Yucca gloriosa* is an aggravating plant, remaining sullenly flowerless for half a lifetime, then suddenly sending up a fountain of thousands of creamy bells. But *Y. filamentosa* is much more free, and a group of a dozen of these may be reckoned on giving an average of three fine spikes each year.

Turning from the giants of the border to the dwarfs, there is no more constant friend in autumn than the *Colchicum*, known to young ladies (erroneously) as the autumn crocus, and to boys (vulgar ones, of course) as 'naked ladies.' But the prince of colchicums is seldom seen, though quite as easily grown as the common sorts. This is *C. speciosum* twice or thrice the size of any other, and most desirable for its beautiful chalice of clear rose. Of the true autumn crocus, by far the best is *Crocus speciosus*, which grows like any weed, and sends up crowds of veined cups of violet hue, contrasting admirably with the brilliant orange stigmata.

The heaths are too well known to need mention, but one of the family flowering at this season is not so often seen as it deserves to be. This is the shrub *Clethra* loaded with spikes of white May-scented bloom. Of three or four species, *Clethra arborea* is the best, and *alnifolia* next.

A splendid addition has been made lately to yellow autumn flowers in the shape of *Rudbeckia maxima*, a really noble plant bearing large yellow solitary flowers, with conical centres of maroon, on stems four feet high, rising out of broad glaucous leaves. Another notable yellow is a shrubby St. John's wort (*Hypericum oppositifolium*), rarer and far more choice than *H. Patulum* which nurserymen are prone to substitute for it, and unsurpassed even by the new hybrid *H. Mozerianum*, though that is a fine thing too. Among blue flowers, *Veronica subsessilis* is conspicuous in this month, with solid spikes of deep lapis-lazuli colour. The vast variety

of *Gladiolus* is apt to debauch the judgment for shades of red; but the glowing *Monarda didyma*, known as 'bee balm' in its native North America, and first cousin of the bergamot often seen in old-fashioned parterres, pleases the eye with its rich velvety tone. Don't forget the so-called purple groundsel (*Senecio pulcher*), which bears an uncommon shade of rosy lilac on its spreading rays. Then there are two pink flowers, of which almost every visitor is sure to ask the name: one is the truly exquisite *Sparaxis pulcherrima*, with large airy bells dancing on arching, wiry stalks four feet high. The other is a large stonecrop, *Sedum spectabile* (see you get the true, bright rose variety), of which the broad, crowded corymbs have a never-failing attraction for wagtails by reason of the flies which gather round them, and for red admirals and humming-bird moths, by reason of the honey they contain.

Of white flowers there is abundance. *Hydrangea paniculata* is perhaps the most showy, with its great drifts of cream-tinted plumes; but for perfect grace and beauty there is nothing to compare to the white Japanese windflower (*Anemone Japonica* var. *Honorine Joubert*). Blessed be Mr. William Robinson for bringing this flower to common knowledge about a quarter of a century ago! The cult of the æsthetes is extinct, but while they were with us nothing excited their withering wrath more surely than a display of white and gold. Yet in what combination does Nature take more delight from the trivial daisy to such masterpieces as the magnolia, the water-lily, and the Madonna

lily? And in no blossom are they painted more purely than in this autumn windflower.

These and an innumerable host of other autumn jewellery are at our disposal to furnish our gardens withal, yet will they fail of half their charm unless the setting is worthy of them. Straight borders of uniform width are well enough for a mere collection, but far more is wanted for a right floral gallery. If one recommends a background of shrubs, it is too apt to suggest a dreary waste of that kind of plum which we fondly call laurels (*Prunus pseudo-cerasus*) or a still more dismal thicket of another plum which we distinguish as Portugal laurel. If your climate suffers the true laurel—the sweet bay, the meed of heroes—to grow, it is well with you; but if not, what an array of lovely things there is to choose from—the frosted silver of *Retinospora squarrosa*, the emerald sheen of *Choisya ternata* and *Griselinia littoralis* (we have no English names for these recent acquisitions—the first from Brazil, the second from Japan), the feathery grace of *Indigofera*, the upright forms of Lawson's cypress, the roseate mist of Venetian sumach, and the boldly pinnate sculpture and intense colour of the stag's-horn sumach. Then there is the curious *Desfontainea spinosa*, which pretends, with some success, to be a holly during the early months, till one fine morning in August you find it studded with scarlet and yellow trumpets three inches long. Another surprise is *Rhus toxicodendron*, the poison oak of the States, a meek, green leafy thing all summer, blazing into matchless scarlet and yellow in

autumn. It is usually sold under the harmless title of *Ampelopsis japonica*, but beware! it is a *Rhus*, and dangerously, violently poisonous.

Half-a-dozen words must be spoken about choice weeds, which, if you scatter the seeds thereof once, will come up in all kinds of unexpected places for ever after. Of such is the little Alpine toadflax (*Linaria alpina*), with purple and orange clusters, another toadflax (*L. tristis*) pied with maroon and yellow, a third (*L. crassifolia*) with violet and white blooms, to which may be added our native ivy-leaved toadflax (*L. cymbalaria*) to drape old walls withal. The annual species of *Silene*, as well as the Shirley poppy and its cousins, *Papaver alpinum* and *P. umbrosum*, respond generously to this kind of neglect.

LVIII

Where two kingdoms meet

The whole firmament is looped and waved with delicate grey cloud, save where, on the south, a low band of pale yellow throws the horizon into relief. Although it is within an hour of noon, a kind of twilight, peculiar to a northern 'back-end,' renders even the near landscape indistinct; but the oaks of Carham, sloping to the stream, burn like red gold, and the river reach in the foreground gleams like beaten silver. Every hill and hollow, every crag and shaw, is full of historic meaning; for history is made up of strife, and nowhere do people strive so fiercely—nowhere do they hate each other so bitterly

—as on the banks of a great river. 'That fellow on the other side!'—why, the old meaning of *rivalis*, a dweller on a *rivus* or river bank, is quite forgotten in our use of the modern term 'rival.' Such a position implies fighting just as surely as loitering at crossways—*trivia*—engenders gossip—what is 'trivial.' This Tweed is a river of rivers, across which for three centuries was hurtled to and fro warfare of that woful, wasteful sort that only brothers can wage. These brothers have made up their quarrel now, and look back wondering what on earth it was made them fall out.

The birthplace of the great dispute is close at hand—only a couple of fields off. Those few grey roofs, scattered on yonder green ridge, are all that mark the site of once famous Birgham-on-Tweed, where, on July 18th, 1290, the four guardians of Scotland, forty-four ecclesiastics, twelve earls, and forty-seven barons set their seals to the treaty defining the relations which should exist between their country and England after the approaching marriage of Edward of Carnarvon, first Prince of Wales, to Margaret, the child-Queen of Scotland—the Maid of Norway. Even at the distance of six centuries it is difficult to reflect without chagrin on the shattering of this fair project by the untimely death of the Maid. Fighting, doubtless, there would have been in any case, so many were the facilities for that pastime afforded by the feudal system, but not three hundred years of butchery between people of the same race and language. When Alexander III. died, in 1285, the best king that ever sat on the

throne of Scotland, he left his realm rich, his subjects busy and prosperous, and in perfect amity with the subjects of his nephew, Edward I. When, in 1603, James VI. assumed the crown of both kingdoms, three centuries of perpetual warfare had strained and drained the resources of his northern realm to such a pitch that the name of Scot had passed into a byword for poverty among all the nations of the earth.

How different it all might have been—*sua si bona norint*; and yet, morals and economics apart, who that knows and loves the borders would have it otherwise—would exchange for ages of cumulative prosperity the store of legend and ballad which consecrates the valley of the Tweed? Who can bring himself to deplore the stern, sharp schooling which has left such lasting traces on the character, physical and intellectual, of its people?

It is one of the chief charms of angling—especially for salmon—that, in the intervals of action, one's thoughts are free to gather up all that the neighbourhood has to impart of its story; and so this morning, as the boatman, standing afar on the Scottish bank, allows me at the end of his rope to drop foot by foot down one of the most renowned casts in Tweed, and the wavelets tinkle drowsily against the coble, my mind is full of far-off days. I am in Scotland, but the building on the further side of the bank is not a kirk, but an English parish church. Every cast that I make sends my fly across the frontier where two kingdoms meet—a line in mid-current as imaginary as that which once

so sharply severed people of the same race and speech. Does it not seem—? My thoughts are smartly switched off upon another course. As the fly sweeps round the stream there is a sudden stoppage, the rod is quickly raised, the good greenheart bends like a strip of steel, and the reel plays out slowly as a heavy fish dives among the rocks of the Kirkend.

There is no rush or flurry; imagination has a good deal to do with the description anglers are so fond of giving of the racing and desperate struggles of heavy fish. Truth to tell, these late autumn fish play sluggishly, though with considerable *vis inertiæ*. At nearly all times the speed of a salmon on the line depends very much on the strength of the current; an eight-pound fish in a swift stream will afford his captor far more excitement than an eight-and-twenty pounder in still, deeper water. The current here is no more than moderate, and the contest consists of a series of resolute journeys to the deep water, followed by reluctant yielding to the merciless pressure of good silkworm gut. The water, however, is very shallow on the Scottish shore, and the fish—a heavy kipper—manifests a strong objection to daylight; each time he feels the gravel he puts on steam, and plunges heavily back to the depths. At last, a broad gleam shows beneath the wave; he is on his broad side—a sure sign of exhaustion. Three minutes more and the boatman, wading in to mid-leg, deftly passes the net under him, and scoops out my first victim—a thick-set, shapely fish of exactly four-and-twenty pounds.

Once more the boat glides out at the rope's end, and the fly—a gay 'Kate' with carmine bodice and golden ruff—is sent on its mission. 'A yard or two more line, sir,' calls the boatman from the bank. 'He lies pretty far over there.' Hardly is the command obeyed, when a vigorous tug under water preludes another struggle similar in all respects to the first, except that this time the index of the steelyard only touches seventeen pounds.

I have arrived now at the part of the cast known as 'the Kitchen,' where the current slackens and the river widens into a tranquil pool. Several fish are showing there, but, alas! there is not a breath stirring; the surface is glassy, and, save a single indolent roll at the lure without effect, not a salmon of them all will take the slightest notice of 'Kate.' So we make up our minds to invade England: the boat is drawn up to the top of the stream and rowed across; operations are begun from the right bank. By the time the foot of the cast is reached another brace of salmon lie in the boat, twenty and seventeen pounds. A short interval for lunch follows, and we go off to try two other casts in succession; but 'Flummie'—a swirling, strong torrent—is too heavy to-day; nothing looks up there. Down, then, half a mile to the 'Three Stanes,' a famous place for big fish. The current is held up here by a 'cauld' or weir, and rolls sullen and dark under a high cliff on the Scottish shore, gorgeous with the leafy livery of autumn. Oh, for a puff of wind! It is distressingly calm; the line falls on the surface like a cart rope.

'Come on!' it seems to say to that fine fellow who has just glided up, head and tail, as stiff as a board in mid-current; 'come on! here is something he wants you to believe is dainty fare. Don't you believe a word of it: it is not a fly, or a shrimp, or a fish, or anything good to eat at all; but just a bundle of fur and feather, with a well-tempered double hook, and here am I behind it to drag you ashore, if you are such a fool as to bite at it.'

Cast I never so delicately, the same explicit warning is repeated again and again, with the effect that, although the 'Sir Richard,' which I have substituted for dainty 'Kate,' probably floats over the heads of half a hundred fish, they only wink at it (or would wink if they had the eyelids to wink withal), and lie low.

There is not an hour of daylight left, just time for another trial of the rippling Kirkend. Fishing down the Scottish side, I hold a fish for a moment or two, and he is off. Over to England again; perhaps the gloaming has brought some of the fish out of the kitchen into the brisker water. Ha! there he is, sure enough; marry! the heaviest fish I have felt to-day. He runs strong and deep, perhaps it is that forty-pounder which I have been toiling after for nearly as many years. It is almost dark when the question is decided, and it is a little disappointing to find he is only another twenty-pounder. Had I lost him, he would have figured in this chronicle of far more formidable weight.

The day is done, and as I wend my way home through the shadows disappointment has no share in my reflections, for many good fishing days produce less than ninety-eight pounds of salmon.

LIX

Pochards and Tufted Duck

For some years it has been evident that pochards and tufted ducks are extending their breeding range in this country, and I am able for the first time to certify that both these species nest in Wigtownshire. The presence of odd pairs of these birds during the summer, and the early appearance of young ones, for many years past had given me a pretty strong notion that they had not travelled very far. This year a neighbour of mine obtained from a keeper on Lord Bute's moors two lots of young ducks, which turned out on inspection to be pochards and tufted duck. There are seven lochs, some of them pretty extensive and studded with islets, in the upper part of this parish, and here, it seems, has been the regular breeding-place of several pairs. Moreover, I have a moral certainty that the scaup breeds there also, though it is usually reckoned a marine duck. I saw two pairs of scaup on my sanctuary lake in the middle of April. When I returned in the first week of August there were nine.

Scaup, pochard, and tufted duck are all diving ducks, not only nearly akin to each other, but associating together habitually in the most friendly way. They

frequent the same feeding grounds, and eat the same food; but it is a remarkable thing that while the flesh of scaup and tufted duck is rank and, if not uneatable, next door to it, very unpalatable, the pochard, or dun-bird, is one of the most excellent of ducks on the table. It is the only diving duck known to me which is worth powder and shot.

It is a curious thing that mallard, shoveller, widgeon, and teal—surface-feeding ducks—have never learned to dive for food. The accomplishment would be useful to them; for one may often see them poking their heads and shoulders far under water in search of food, with their tails sticking aloft in a very unbecoming manner. Perhaps it is not considered good form in high aquatic circles to dive under the table for victuals; that surface ducks *can* dive let any one testify who has pursued a wounded mallard in the water. But in society they don't do it, though they are not above gobbling up the floating fragments dislodged from the bottom by the diligence of their diving associates.

LX

A lovely object is before my eyes as I write. It is only a common spindle tree (*Euonymus europæus*) about twelve feet high, but every spray of it weighed down with its curious four-lobed berries of a peculiar shade, which it would be hard to match in other fruits. They are not crimson, like haws, nor scarlet, like hips and holly berries, nor orange-

Berries

red, like the *pyracanthus*, but exactly the hue and quality of rosy coral. Were the spindle a rare exotic we should rave about it; standing in clear sunshine, which turns its leafless boughs to silver, it gleams against a dark background of yew with an effect of marvellous beauty. Yet it is a native British shrub, abundant enough in some English and Irish districts, and establishing itself freely when introduced into Scotland, although it seldom occurs to anybody as worth planting. We cram our woodwalks and shrubberies with common rhododendrons and so-called laurels, which are not laurels at all, but evergreen plums (*Prunus lauro-cerasus*), till a wearisome monotony makes one place resemble another as nearly as possible. There are plenty of innocent persons who believe this evergreen plum to have furnished the original meed of heroes. Of course, it is not the true triumphal laurel; that is the sweet bay (*Laurus nobilis*), belonging to a widely distant order—the *Lauraceæ*—the mock laurel being a member of the rose tribe. Japan sends us plenty of evergreen spindles also; you may see nearly half a mile of seawall at Brighton planted with *Euonymus japonicus*, which has an advantage over the British species in being evergreen, but vastly inferior to it in producing no lovely fruit. The common spindle rejoices in one notable attribute, that of holding a place in the very limited list of ornamental shrubs that withstand the attacks of rabbits.

Another British shrub at present very attractive by

reason of its fruit is the sea-buckthorn, or sallow-thorn (*Hippophæ rhamnoides*). It is a diœcious shrub, the sexes being on separate plants, and the females only bearing berries; but these are thickly studded on every twig with clusters of orange-yellow berries, contrasting charmingly with the silvery foliage. Some varieties bear brown berries, but such ought to be rigidly suppressed. The popular name, sea-buckthorn, is rather misleading, and arises from the fact that in England the plant is only found wild on waste land near the sea, but its real home is in Central Asia and Eastern Europe, and it will be found to make itself quite at home in inland places.

Of more vivid orange are the seeds of the gladdon, or woodland iris (*Iris fœtidissima*), now displayed in many a south-country hedgerow by the opening of the large triple capsule containing them. This is a herb which is well worth planting in those parts of the country where it does not come spontaneously; it takes care of itself in waste places under trees; and as for the uncomplimentary title bestowed upon it by men of science, why, the worst that can be alleged against it is that the leaves when bruised give out an odour of cold roast beef. If that is unpleasant to you, don't bruise the leaves.

One of the most curious, and at the same time most showy, British berries is the fruit of the butcher's broom (*Ruscus aculeatus*). It is borne abundantly in the southern counties, but will not ripen beyond the northern limits of the nightingale, though the plant

itself grows freely enough when planted in Scotland. It is a paradoxical little shrub, something like a stunted holly in aspect, but being in reality a kind of lily. Its true leaves have wasted into minute scales underneath leaf-like branches, each ending in a stout prickle. In the middle of the sham leaf appears in spring a tiny, whitish flower, to be followed in autumn by a relatively immense scarlet berry.

It is rather a crying mischief at present, the prevailing neglect of native plants. As Mr. Cornish has pointed out lately in his charming book, *Wild England of To-day*, a well-marked tract of country consisting of sand formation, stretching from Dorking and Ascot to Bournemouth, has suddenly been recognised as 'eligible building property,' and is being converted rapidly 'into one immense residential suburb, composed of houses graded to suit all incomes from £500 a year upwards.' Now the characteristic vegetation of this district consists of heather and pines, fern and furze. The speculative builder's first care is to efface these, to lay out 'grounds' which it is the seedman's business to provide with lawn, inasmuch as heather is incompatible with croquet and lawn tennis, and the nurseryman's to furnish with shrubberies. Naturally, the nurseryman dumps down whatever he happens to have in stock, of which rhododendrons, mock-laurels, and that most dismal of all shrubs, the Portugal laurel (also a plum), are sure to be most plentiful. There will also be a variety of the newer conifers, wholly irrespective of whether they be dwarf *Retinospora*, suitable in stature

for a modest garden, or Californian *Abies*, which start with the intention of soaring to eight score of feet. Things like these take such vigorous hold and grow so strongly that it requires a regular siege-train to dislodge them; meanwhile, the native flora, which constituted the chief attraction of the place, have been expelled for ever or relegated to an ever-narrowing *hinterland*.

Reflecting upon the divine summer just gone by (1899), what a variety of beautiful berries one may call to mind! Among the earliest of these is the cloudberry (*Rubus chammœorus*) of the Highland hills, delicate in form and flavour, the whole plant not six inches high, balancing, on the windy moor, its large amber-hued fruit among ample, lobed leaves. Not less dainty is its relative, also affecting northern latitudes, the stoneberry (*R. saxatilis*) with bright red fruit. Of duskier crimson and less transparent is the wood raspberry (*R. idœus*), the fruit of Mount Ida, to appreciate which, you should spend a day on the hill, and descending in the evening faint and leg-weary, refresh yourselves with the delicious subacid of the wild plant. The rowan, which yields the proper jelly to eat with venison, will not be forgotten, nor yet a host of little mountain and wood fruits, the purple blaeberry or whortleberry, the jetty crowberry—a veritable little mountain grape—and the cranberry, cowberry, and bearberry, all red. But the most brilliant and curious fruit among our British wild plants is not a berry at all, in botanical language, but a drupe, and a remarkably

tasteless one too, as you will find if you expect something succulent. This is produced by the eccentric dwarf cornel (*Cornus suecica*), found in this country on the Scottish mountains and in a few places in Northumberland and Yorkshire. This curious and beautiful little herb belongs to the dogwood family, and has many aristocratic and important relatives, such as our native dogwood, the Japanese aucuba and others. Its small, dark purple flowers are gathered into a flat cushion surrounded by four snowy-white, petal-like bracts, making up a very showy inflorescence, which has a strangely exotic effect in the mountain solitudes. The fruit which follows is of the intense scarlet of sealing-wax, and delights the deerstalker, if he has eyes for anything besides his quarry, by the brilliancy with which its lowly clusters light up grey rocks and brown heath.

Most beautiful of all British shrubs, if you take foliage, flower, and leaf into account, is the arbutus of Killarney. Alas! that it should be tender in less favoured parts of our islands, and, alas! that even in those seaside places where it thrives, it is not more commonly planted. Its pendulous fruit has a deliciously edible appearance, but the botanists have well named it *Arbutus unedo* (*unum edo*), inasmuch as he who tries one will not hanker for more.

Among exotic berry-bearers let me name one which deserves special favour from landscape-gardener—namely, the tree cotoneaster (*C. frigidus*). Its large leaves are semi-evergreen, and the scarlet fruit hangs in

festoons among them till after Christmas, birds preferring the haws and holly berries as long as they last. It grows twenty feet high, very different in appearance from the cotoneasters used as wall plants, and is perfectly hardy and rabbit-proof.

November

LXI

Autumn on the Tweed

The Royal Commission on Tweed and Solway salmon-fishings, which reported in 1896, unanimously endorsed the recommendation which the Fishery Boards of England and Scotland have repeatedly made. Salmon can only spawn, they point out, and anglers can only ply their art, in fresh water; netting, therefore, which means the wholesale destruction of fish entering the rivers to spawn, should be restricted to tidal waters and the open sea. A fair proportion of every run of fish throughout the season should be allowed to escape, to ensure the maintenance of the race, and to prevent salmon-fishing becoming the exclusive privilege of very rich men, who can afford to buy off the nets.

'After all,' says the pedantic political economist, 'angling is only an amusement, and is of no importance compared with the commercial business of food supply. So long as the nets catch plenty of salmon, the Legislature need not interfere.'

Yes, but suppose, as Scotch lairds are beginning to realise, that angling rights command a better rent than

netting, do not the protection and development of the former assume commercial importance?

Meanwhile, except in a few large rivers like the Aberdeenshire Dee and the Welsh Usk, where well-organised associations have taken spirited action, and in some small ones which are let at high ransoms to wealthy sportsmen, it is hardly worth casting a fly between seedtime and harvest. In the Tweed, for example, once prolific in salmon and trout beyond any other British river, a few fish may be taken with rod in the lower reaches—fish that have run up before the nets begin their deadly work, or that have managed to run the gauntlet in the floods of February Fill-dyke. A summer flood, that used to bring William Scrope to his beloved Craigover as surely as it sent Tom Stoddart with tremulous ardour to Maxwheel at Kelso Bridge or the Laird's Cast at Makerstoun, now runs away without anybody thinking it worth while to take his rod from the rack. The river runs as sweetly as ever through the Haly Weil at Bemersyde, the Burnfoot at Dryburgh, the Bloody Breeks at Mertoun, the Dark Shore at Makerstoun—all famous summer casts of yore, but now tenantless till the 'back end,' all the fish that would seek these immemorial resting-places having been gobbled up by the relentless nets. The indescribable thrill of the rise, the tightening line, the struggle, must be postponed till the days shorten and the leaves turn sere.

Such as we have it, we must not despise autumn angling. The salmon that defers till October his return to his native river is inferior, indeed, in everything but

weight to early running fish. In many small rivers autumn fish are not worth taking; their silvered mail is turned to rusty brown or blotchy grey; their outline, once a perfect model for strength and speed, is marred by lengthening snout and swelling paunch. In the Tweed, however, there is always a fair proportion of well-shaped, well-coloured fish — at least, till well on in November, and their greater average size makes amends. In March and April clean-run fish most commonly run from eight to ten pounds, and show a poor fight on heavy tackle such as is commonly used in those months, especially when these fish are wearied by a long ascent through strong water. In autumn the case is altered. The fish which quit the sea in September and October were probably only eight or ten pounds in the spring, like their brethren who preceded them; but three or four months of sea fare have added prodigiously to their proportions, and most of them scale from fifteen to twenty pounds.

Besides these, there are the veterans which have survived the perils of several seasons, comparatively few in number, but weighing from thirty pounds to fifty pounds each. These sockdolagers are deliberate in migration; they require the whole summer to stuff their mighty carcases with sea provender sufficient to carry them through the cares of matrimony in the lean winter months, and seldom show in the river till towards the end of the season. Their presence contributes immensely to the excitement of autumn fishing, and the sport is enhanced through means of the small

flies and delicate tackle it is often necessary to display in water refined by the first frosts.

Every angler on Tweedside cherishes the secret hope that a flash of good fortune may befall him similar to that which came one November gloaming to a friend of mine. He was fishing the cast called Jock Sure, just above the Monk's Ford, at Dryburgh, when he beheld a mighty form roll dolphin-wise above the glassy surface a few yards below his fly. No splash or flurry—just a silent 'head-and-tail' rise, such as the experienced fisherman loves to see as the light begins to fail.

My friend was alone, fishing off the shore; his tackle was fine and his fly small, for the river was not far above summer size. There was a fair current flowing in Jock Sure, though the surface was smooth. Steadily he plied his lure, working down to the spot where the monster had shown himself, scarcely daring to hope that it would notice the insignificant bundle of fur and feather dancing overhead.

'That's about the place now,' thought he to himself, and at that moment the line stopped—the rod was smartly raised and bent in a goodly curve—the reel gave a short shriek—then, click—click—click, paid out the line by inches as the great fish moved slowly into deeper water. Nine fish out of ten closely resemble each other in their tactics when hooked. Shoal water or a swift current sometimes adds to the excitement, but in this instance there was neither; the muckle fish just sailed up and down the deep channel till he was tired, and his captor began to coax him ashore.

The light was far gone now; the fisher had neither net nor gaff—the latter being *tabu* on the Tweed after the netting season. It was a tedious process to tow such a heavy salmon aground. As often as he felt the gravel, a sweep of broad tail launched him into the deep again, and the work had to be done over again. At last he lay on his broadside, glimmering 'like a great soo' in the twilight. Lucky for my friend that he had a grip like a vice; it required it all to hold on to the thick 'small' of that tail to draw his quarry ashore, and to carry him up the wooded bank, never more to steer a course beneath the ocean billows or stem the streams of Tweed. Forty-two pounds honest avoirdupois! Single gut, Limerick steel, and skilful handling had won a memorable victory.

A single lifetime cannot compass many triumphs such as this; but there are other episodes over which a man delights to brood when his rod is on the rack and his feet on the fender. Much of the Tweed fishing is a trifle tame; the size of the stream demands the use of a boat in most places; and the 'dubs'—those long, deep slow reaches where big autumn fish are most likely to be met—necessitate a peculiar style of fishing which is irksome to men accustomed to brisker streams. Nevertheless there is one bit of really wild water on the Tweed—that between Old Melrose and Bemersyde—which it would be hard to beat on any river. After lingering lovingly under the leafy heights of Gladswood, and creeping slowly through salmon-haunted Cromweil, the river wakes up to the necessity of a rough and rapid

descent. Spreading wide, it roars and rushes down along a rocky channel under the beetling Gateheugh for half a mile. A stranger would pass by this reach without suspicion that there was a yard of fishing water in the whole of it. The boatman knows better. Rowing into mid-stream at the foot of Cromweil, he drops overboard, and, wading up to his armpits, slowly descends down the very centre of the rapids, guiding the boat to which he clings, and directing the angler where to cast—into a pot here, an eddy there.

The descent can only be accomplished in certain states of the water; but the salmon dearly love these mysterious resting-places in the tumult, and rise very freely. So sure as you hook one, there will be sport. Most likely he will be swept out of the little refuge whence he rose, and go careering down the torrent, while the reel spins merrily. You realise then how much the 'wildness' of a fish depends on the strength of the stream. In fact, if you hook a log in a Norway river, it will run harder than any salmon, for the log descends unresisting, whereas a salmon hates being carried down, and keeps his head up stream. So if anybody sneers in your hearing at Tweed salmon for their tameness, ask him if he has ever passed down the tossing Gateheugh with a tight line, and landed his twenty-pounder among the rocks under the towering Gled's Nest, where the jackdaws wheel and chatter.

So much for the bright side of the subject: now for the seamy one.

The salmon-angling season ends on most Scottish

waters on October 31st. On a few northern streams the close season begins in September; October 15th is the date fixed for the Tay, and in a few of the Solway streams angling is allowed to continue till November 15th. On the Tweed alone the season is extended till November 30th, a concession intended to compensate sportsmen for the excessive havoc wrought by improved netting machinery in the tidal and lower reaches, whereby the spring and summer fish, which used to give excellent sport not many years ago, have been all but exterminated. Immense rents are paid by rod-fishers for the best casts on the Tweed, but hardly any one thinks it worth while to cast a fly before the nets are taken off in September. It makes one's heart sore to see a noble river so greedily used, and one longs for the enactment of the recommendation of the Royal Commission, that the weekly close time for nets be extended to forty-eight hours, that no netting be allowed above the tideway, and that rod-fishing shall cease on November 15th. But all this will avail little unless the foul fishing in the upper waters be put an end to. At present, almost every fish that makes its way into the shallow streams about Innerleithen is doomed to die by the gaff, the leister, or the still more nefarious stroke-haul. Ghastly objects they are, poor things, swollen and discoloured, with milt or spawn running from them as they are dragged from the spawning beds. Wasteful and disgusting as the practice is, it will require a strong effort to check it, for poaching has been instilled into the very blood of the 'braw lads o' Gala Water,' and for

three centuries it was the policy for the legislature of both Scotland and England to permit the utmost havoc to be wrought on fish swimming in streams with both Scottish and English banks. That is the reason why to this day Tweed and Solway have each their special Acts of Parliament, distinct from the rest of Scotland.

There will be some grumbling among lessors and lessees of rod-fishing if the close time for rods is extended as proposed, for the nets will still reap the chief benefit. But that must be so always; and most candid sportsmen will admit that the majority of the fish taken after the middle of November, even as low down as Sprouston and Birgham, are in a condition to be treated with mercy. It is true that Tweed salmon differ from those of most rivers in respect that many of them, even in an advanced gravid state, retain their silvery coats until they are actually on the spawning 'redds'; a boat-load of November fish does not present the unsightly appearance which those of any river except the Tweed would do. It is true, also, that the heaviest fish leave the sea latest, and there is a better chance for the angler to immortalise himself by the capture of a forty or fifty pounder in November than in any other month. But sportsmen can afford to be generous; and when they compare the dull, sluggish movements of a November salmon with the gallant resistance offered earlier in the season, when fish are in fighting trim, surely most of them will be content to exercise a chivalrous forbearance.

The Tweed flows with a singularly gentle force among obstacles of which very little displacement would be the cause of formidable cataracts. In all its course from Abbotsford to Wark there is not a barrier which need cause a moment's hesitation to a bold fish ascending the stream. In various places, as at the Gateheugh above mentioned, or at Craigover in the Mertoun water, celebrated by Scrope, the flood is turned at right angles with some roar and chafing, but the general character of the casts is an alternation of sweeping stream and spreading pool.

But the 'big days' on the Tweed are generally enacted on what are known as the 'dubs,' long stretches of deep, dead water, such as are known on the Thurso as linns, held back by a cauld or weir. A salmon, though reputed to be meticulous in the matter of flies, has no eye for the picturesque; so long as he can find shelter, he cares not whether it be under a grey crag, feathered with birch, crowned with oak and rich with associations of Border fray, or in a 'dub' as dull as a canal, with a turnip field on one side and a highroad on the other. Consequently, as the 'dubs' afford easy lying and good shelter, the fish are wont to congregate in them in great numbers, and afford a fine prospect as they roll to the top from time to time, flashing their silvery sides, or, plunging heavily, plough up the water like round shot. But to fish a 'dub,' you must have a breeze. Why, it is not easy to explain, for trout, far more wary than any salmon, may be taken in Test or Itchen, in dead calm under blazing sunshine. But on

those placid autumn days which sometimes follow each other in long procession—the angler's despair—though the salmon roll and splash as freely as under a weeping sky, you shall not delude one of them to seize the lure. Not at least till sundown—and then, perchance, in the 'fool's half-hour,' you may get a heavy pull at a small White-wing or Silver-grey, and so save a blank.

But, given a steady wind and a good grey cloud, the lot which sends you to one of the 'dubs' is not one to be despised. Very likely there lies a hard day's work before you. If you value peace, you will quench any partiality you may entertain for certain flies. Tweed boatmen are terribly autocratic, and it is best to avoid friction by showing ready acquiescence in the dogma which prescribes a Wilkinson because there is frost in her (*i.e.* the river), or a Ranger because there is a whiteness in her, or a Greenwell because there is 'a kind o' a blackness' in her. Put on whatever you are told to use and learn to fling your line right athwart the channel, allowing it to swing slowly round with the current as the boat is paddled slowly up-stream, with the rod low and at right angles to the boat. Dub-fishing is an art of itself; the fish lie deep and rise slow; do not work the fly in the lively way you have learned is attractive in shallower waters; to do so is not only to lessen the chances of success, but a waste of strength. Energy, indeed, should be husbanded in dub-fishing, for it may fall to any one's lot to rival the great day of the late Mr. Liddell, sometime vicar of

St. Paul's, Knightsbridge, who a few years ago, being then more than threescore and ten, did encounter and overcome eighteen heavy salmon in the compass of a single day on Birgham Dub. The largest of them scaled, if I remember right, thirty-five pounds, and their aggregate weight was somewhere about 350 pounds. Such a performance is a test to the endurance of anybody's back and arms.

So, as you allow your fly to circle slowly round in the rippling water, you may suddenly see the line drawn taut and feel that vigorous snatch, followed by a mighty pulling and a whirring reel, which tells that a good fish has been deceived. You have gone afloat with disdain at heart for a stream that looks more like the haunt of barbel than of salmon, but, perhaps, you may wind up in the dusk repeating after Mr. Andrew Lang:—

> 'Unseen, Eurotas, southwards steal;
> Unknown, Alpheus, westward glide;
> You never heard the ringing reel,
> The music of the waterside.'

LXII

The Osmanthus

Among the few shrubs in full flower at this late season there is one which is not so often seen as it deserves to be, *Osmanthus ilicifolius*. It is well named *osmanthus*—flower of fragrance—*ilicifolius*, holly-leaved—for its small clustered flowers of pure white smell deliciously, superlatively sweet, and

the leaves of young plants and the lower branches of old ones are exceedingly like those of the holly—leathery, varnished, spined, and evergreen. It possesses, too, the strange property of the holly in arming with prickles those leaves which are within browsing reach, while those on the upper branches are as smooth as those of a camellia. A native of Japan, it is quite hardy in our climate, and is a common ornament of gardens in Rome, though you shall not see it in one British shrubbery out of a thousand. It belongs to a family—the *Oleaceæ*—which furnishes us with many favourites —the privet, phillyrea, flowering ash, forsythia, and lilac.

LXIII

The best of Oaks.

What has become of the old durmast oak, the noblest variety (some botanists make it a separate species) of the British oak? It is the native oak of the Lake district, of Wales, and part of Scotland, and is distinguished from the oak of Southern England by having footstalks to the leaves and none to the acorns, whence its specific name *sessiliflora*; the southern form (*Quercus pedunculata*) has footstalks to the flowers and acorns and none to the leaves. Besides these characteristics, the northern oak has a bolder, freer growth, and more beautiful foliage; the timber is of equal value to that of *pedunculata*; and in damp or cold districts it ripens its young wood far more regularly. This makes it a much more valuable tree for the forester than the southern

variety; yet nurserymen have ceased to supply it. Unluckily, two leading authorities on forestry, Messrs Brown and Michie, have written in favour of what they call the English oak — that is, *Q. pedunculata*—and their opinion has driven out the other and better tree.

It is a mistake to suppose that the southern form is exclusively the true English oak. Shakespeare's oaks—the 'Warwickshire weed'—is the durmast or northern form, as any one may see by inspecting the old trees in the Forest of Arden, where by the by, blown trees are being replaced by the inferior variety. The greater beauty of the durmast is very apparent at this season, when the foliage has assumed its autumn gold. This contrast may be well observed in Knole Park, near Sevenoaks, where the oaks scattered through the park are of the southern variety, but there is a double avenue of splendid durmast leading up to the house. The boles and limbs of these trees are clean grown and shapely, unlike the gnarled and fantastic forms assumed by the other variety, the predominance of which in the south I am inclined to attribute partly to the heavier drafts made upon the durmast to supply the wants of the navy at the close of the eighteenth century and beginning of the nineteenth.

December

LXIV

THREE hours before sunrise, on a winter morning of late, a veteran marauder came to a bloody end. It was in the very heart of Mr. Crockett's 'raiders' land'—the grey Galloway hills. The old fellow was making for his home in the fastnesses of Cairnsmore: there was a price on his head; he had many miles to travel, and he cared not to be out after dawn, lest some officious hill shepherd or keeper should mark his retreat and summon the scattered neighbours to his destruction. The Fleet was in heavy spate, rolling an inky torrent between him and his native mountain. A few seasons ago and he would have plunged into the flood and dried his jacket in the wind as he ran; but he had been conscious of late of a stiffness in the joints and loins which inclined him to short cuts and easy slopes; a mile or so of détour across the moor would land him at one end of the long and lofty viaduct which carries the Portpatrick Railway over the river. The outlaw had often used it, when not pressed for time, after former nights of misdoing, so off he set

A Hill Tragedy

at his brigand trot, and had scarcely set foot on the bridge when a distant roar struck his ear.

'Ha,' thought he, 'the boat-express for Stranraer; most exemplary punctuality. Really,' he muttered, as he picked his footsteps between the rails, 'these railway engineers are most thoughtful, though I doubt if they were thinking much of *my* convenience when they built this nice bridge. That water would have been most disagreeable this gusty morning.'

The roar grew louder in the gloom behind him. Looking over his shoulder, Todd, for that was the outlaw's name, saw the lights of the express tearing towards him. In a moment it flashed upon him that he would be overtaken on the single line. It was too late to turn back; had he time to dash forward and gain the other side, fully three hundred yards distant? He started to run; age and stiffness were forgotten; he was as fleet of foot as of yore; terror added wings to his heels, for life was sweet, oh! so sweet, among those Galloway hills.

The end came within fifty yards of safety; painless, probably, because so violent—silent certainly, because none of his race were ever known to utter a sound in the death struggle. A surfaceman passing at sunrise found his body on the line, not sorely mangled, but stiff and cold—a fine old hill fox, who thus paid the penalty for a long career of crime.

LXV

Within a few miles of the scene of this tragedy another mournful episode falls to be chronicled. Six-and-forty summers ago, in days when the white-tailed eagles still bred on Cairnsmore, an eaglet was taken from the eyrie, and has since endured life-long captivity, chained by the leg to a granite boulder. A few seasons after its birth, in 1858, the last pair of his race in Galloway were trapped on the far side of the Ayrshire boundary. Since then the captive has scanned the heavens daily with angry, eager eyes, yet never have they been gladdened by the sight of one of his soaring kin; and now the light in them is quenched for ever. He lives, but he is totally blind.

The Age of the Eagle

An eagle is the very type of freedom, yet I hesitate to affirm that the life of this captive has been an unhappy one. The wants of a wild animal probably are simpler and fewer than we are inclined to reckon them. Food supply, security from attack, and the connubial instinct perhaps comprise all the sources of disquiet. The Cairnsmore eagle has lacked nothing in the first two respects; in the last, indeed, he has been hardly used, yet there are not wanting cynics who declare that celibacy is a safeguard against many ills. To have his lamb and rabbits regularly served without the trouble of hunting the wastes in the worst of weathers may be a cause of greater gratitude in the bosom of this fine bird than the harshness of his voice and the unsympathetic cast of his countenance permit

him to express. Anyhow, he is in fine plumage, and continues to take his meals regularly, whereas the loss of eyesight would have condemned him, had he survived to his present age in a state of liberty, to a lingering death by starvation.

> 'Twice the life of a horse, once the life of a man;
> Twice the life of a man, once the life of a stag;
> Twice the life of a stag, once the life of an eagle.'

So runs the old Highland saw, though I forget whether the stag or the eagle is credited with the longer existence. Anyhow, no insurance company ought to accept risks according to this table; for the Cairnsmore eagle offers, perhaps, the only datum for fixing 'expectation of life' in his kind, and, at what a man reckons but middle age, this bird is only kept alive by the daily ministration of his attendant.

P.S.—Since this note was written, the Cairnsmore eagle—last of an immemorial race—has passed away, in May 1900, at the ripe age of eight-and-forty.

LXVI

A vanishing Food Fish

The salmon-fishing seasons of 1898 and 1899 must be reckoned of culminating leanness among a number of lean years. In fact, our goose of the golden eggs seems to be approaching its last gasp. Except in a few rivers like the Usk, the Aber-

deenshire Dee, and some of the smaller streams in the far north, where proprietors have realised the superior harvest to be reaped by preserving their waters for angling, instead of letting them, at competitive rents, to netters, the combined greed and ingenuity of man is on the point of overcoming the extraordinary fecundity of the finest of our food fishes, the noblest of our sporting ones. Would we avert the fate impending on our salmon fisheries, there is no course open to us but to follow the recommendations of the Royal Commission on Tweed and Solway. These two estuaries, naturally more productive of salmon than almost any others, have fared worse than any, owing to causes connected with a historical source. In the long centuries of Border warfare, each country encouraged its people to inflict the utmost damage on the fishings of the other. The Scots had no inclination to preserve salmon in the upper waters of the Tweed and Esk for the advantage of English nets at Berwick and Netherby. Hence, not only have the rivers of these districts remained to this day, as above mentioned, under statutes distinct from those affecting the rest of the two kingdoms, but the inhabitants, especially on the eastern watershed, have inherited an incorrigible aptitude for illegal fishing. The statutory close time for nets in the Tweed begins three weeks later than on nearly all the other rivers: no sooner are the legal nets off than the estuary is harried by poachers plying the deadly hang-net, and the autumn run of spawning fish is intercepted on its way to the upper waters. Those that do escape find

small mercy when they reach the best spawning grounds, where the leister, the gaff, and the 'snatching' hook are plied almost with impunity. When the pollution poured from scores of woollen mills is taken into account also, and that no effort is made to replenish the waters by artificial hatching, the wonder is, not that salmon are more scarce than of old, but that all these adverse conditions have not prevailed to exterminate the breed altogether. In the Teviot, the most important tributary of the Tweed, and, in the golden age of Scrope, a famous salmon river, a very near approach to extermination seems to have been attained, seeing that the whole result of the past angling season consisted of one salmon and one grilse! The Royal Commission reported nearly two years ago, and no action has been taken by the legislature; but indeed the question remains, What is the use of making new laws if the existing ones are allowed to be set at nought?

LXVII

Mistletoe upon the Oak

Elsewhere I have ventured to express doubts about the existence in Britain of mistletoe at the present day upon the oak. These doubts arose from repeated failure to obtain specific evidence of a single instance. Moreover, I have searched through thousands of oak trees in such districts as Surrey and the Loire valley, where oaks abound, and where mistletoe grows abundantly upon poplars, apples, limes, robinia, and hawthorn, and have never been lucky enough to

light upon an example. Now, however (1900), my scepticism is dispelled. Oaks bearing living mistletoe are growing at Stoulton in Worcestershire, and Eastnor Park in Herefordshire. Other instances are reported from Sherwood Forest, Richmond Park, and Windsor Forest, but I have not been able to ascertain whether these remain at the present day.

LXVIII

My Book-shelves.

Mine—if it be not straining the possessive pronoun to apply it to a collection of which I am a joint owner with thirty and odd millions of other taxpayers; mine—although the title to use and consult these books may be reckoned precarious, depending on the *popularis aura* which has wafted my name hitherto to the top of the poll in successive elections. For, although the owners be legion, the warning—'For Members only'—renders the readers in our library at the House of Commons a company numerically select, if somewhat transitory.

There is, however, little of an ephemeral character in some fifty thousand volumes which people its walls. It is perhaps unique among libraries which profess to be general, in the proportion which fiction bears to other subjects. Gentle Sidney's turgid sentimentality may be studied in his *Arcadia*; among Goldsmith's graver works, *The Vicar of Wakefield* offers an ever-verdant oasis; but I have not yet discovered any later prose romance; there is no Fielding, no Scott; we do

not recognise Dickens or Thackeray; and as to living novelists, we seem to share the opinion of—

> '. . . The young person of Delhi
> Who *couldn't* read Crockett's "Cleg Kelly";
> When they said—"It's the fashion,"
> He exclaimed in a passion—
> "I know! but so's Marie Corelli."'

Nevertheless, there is some refreshment in these shelves for those who have learned where to look for it. There are a few bindings which it is good to handle; the dark-blue calf containing the MS. Journals of Cromwell's Parliament, with its significant erasures and mutilations; or Derome's crimson morocco, of which a century and a half has not quenched the superb glow; others, not of æsthetic merit, but possessing a pathetic interest, and telling by their bruised and water-stained sides of that autumn morning sixty-six years ago, when the Houses of Parliament were consumed by fire, and, of the books in the library, only a few were thrown out of window on the terrace and saved. The present collection has been got together since then. In 1835 the Standing Committee reported the almost total destruction of the former collection; twenty years later 20,000 volumes had been purchased, and in the following year this number had increased to 30,000. No clear principle, save the rigid exclusion of works of fiction, seems to have guided the Committee in their choice of books; one is a little disposed to grudge £236 which they spent on Cuvier's works, out

of one of the very few legacies they have ever had to dispose of in the purchase of books.

The general furniture of these shelves has some analogy in geology—a vast and uniform sedimentary formation, represented by the steady accretion of Parliamentary papers and debates, with erratic blocks of nobler material and unexpected 'pockets' of precious metal. The choicest 'claims' are situated in the room third and last to the east of the Oriel room which gives entrance to the suite. This is pretty rich in poetry and classics, remarkably so in county histories and topography. There is not much temptation to loiter in the first two rooms, unless your taste lies in heraldry, of which noble science there is a choice little collection of authorities in the corner nearest the fireplace of the second room. Even should the jargon of blazon be an unknown tongue to you, it is worth pulling out a fine morocco-bound folio of Milles's *Catalogue of Honor*, to note the tiny, girlish hand in which Thomas Gray, the poet, besprinkled it with marginalia. Among the works of reference, also, are included at least two of scantly senatorial character—namely, a fine copy of Grose's *Blackguardiana* (1785), and the *Glossarium eroticum Linguæ Latinæ* (Paris, 1824). Who was the wag on the Standing Committee who directed the purchase of these for the edification of members?

For the rest, the contents of the shelves in rooms A and B, though furnishing with their serried backs the very best kind of mural decoration, are only digestible by very earnest politicians. Yonder is one

of that kind, you see, ransacking back numbers of Hansard, intent upon feathering with a plume from the adversaries' wing the shaft he is about to aim at his front; in other words, to cripple him with a quotation from one of his own speeches. Considering how ugly are the wounds inflicted in this manner, it is astonishing how seldom they prove fatal.

Passing through the last pair of swing doors, you stand in Room C, the only one of these five great apartments which offers promise of reposeful reading. True, dozens of pens are squeaking, for here, as in the other rooms, long writing tables are filled with busy scribblers; but there are spacious corners with easy chairs worthy of their name. In a curtained recess at the end stands the marble effigy of the late Sir Thomas Erskine May, highest of all authorities on Parliamentary procedure, most fitly enshrined as the genius of that assembly to which he devoted his whole life. His grave eye seems to rest on the bookcase opposite; follow its direction and you will find, not works in Sir Thomas's peculiar province, but a fairly varied collection of French literature. Not novels, of course, but much that stirs the imagination as powerfully as any novel. Take the first that comes to hand—Mirabeau's *Lettres écrites du donjon de Vincennes.* Of all the sorrowful documents that were ever penned, this series is perhaps the most humbling. Sophie de Monnier, it may be remembered, was the wife of one whose hospitality Mirabeau repaid by seducing her. They fled to Switzerland, but Mirabeau was handed over to

the French authorities, condemned to death for *rapt et vol*, which sentence was commuted to one of imprisonment at Vincennes. Having suborned the secretary of the governor, he was enabled to carry on a correspondence with Sophie for more than three years. The tender regrets, the unreserve, the undying constancy they breathe—redeemed from mawkishness by the powerful intellect which gave them birth—the feverish impatience for liberty, only with the object of rejoining Sophie—render these letters most fascinating, could one but forget the shameful end. When he obtained his release, Mirabeau found that the real Sophie was not the ideal he had cherished during his long confinement. He deserted her and her child, and after some miserable vicissitudes, she perished by her own hand.

Replace the book and see if there be nothing near at hand that will leave a sweeter impression of human nature? Sure, here is Michel de Montaigne, and no one is to be pitied who has his company for an hour or two. Luckily, this copy of the famous essays is a good folio of the seventeenth century. To render them in anything but the old typography is all but as cruel as Lamb considered Lord Braybrooke's edition of Burton's *Anatomy*. Threadbare though he be from over-quotation, he is inexhaustible in quaint reflection, gentle scepticism, kindly advice, irrelevant anecdote, illogical conclusion. Above all, how delicate and vivid are the glimpses which he allows into French society at a time when the revival of learning was beginning

to convince people that there was more to be got out of life than by the hollow unreality of chivalry and the clumsy machinery of feudalism. How he loved to escape from the din and display, from the mummery and massacre, to the little library he has depicted so minutely in the third story of his tower, of which the basement contained a chapel and the second floor his bedroom. One can enjoy the very view from his window in Périgord.

'Ie suis sur l'entrée, et vois sous moy mon iardin, ma basse-cour, ma cour, et dans la plupart des membres de ma maison. . . . La ie feuillette à cette heure vn liure, à cette heure un autre, sans ordre et sans dessein, à pièces descousues. Tantost ie resue, tantost i'enregistre et dicte, en me promenant, mes songes que voycy.'

For five centuries these 'songes' have been the source of perennial delight to successive generations. Scores of later essayists and diarists have amused and interested us; Samuel Pepys may be more minutely frank; Rousseau more conscientious; Addison more elevating; Lamb more jocund; but not one of the whole tribe has ever excelled or, as I think, equalled Montaigne in the charm created by delicately handling grave matters with levity, and trivial things with gravity. In the most agonizing spasms of a deadly disease, he had still the spirit to discuss affairs most remote from his own circumstances:—

'Quand on me tient le plus atterré, et que les assistants m'espargnent, i'essaye souvent mes forces, et leur entame

moy mesme des propos les plus eloignez de mon estat. . . . Estant cheu tout à coup d'une tresdoulce condition de vie et tresheureuse, à la plus douloureuse et penible qui se puisse imaginer . . . ie maintiens toutes fois, iusques à cette heure, mon esprit en telle assiette, que pourveu que i'y puisse apporter de la constance, ie me trouve en assez meilleure condition de vie que mille avltres, qui n'ont ny fiebvre ny mal que celuy qu'ils se donnent eulx mesmes par la faute de leurs discours.

This is the kind of sweet philosopher for a prisoner of the Whips to take with him to one of those low green-backed chairs of a summer afternoon. The sun is off the river front; air flows in through the open windows; soothing sounds come off the water; the *frou-frou* of many visitors; the tinkle of tea-cups and the murmur of many voices are heard on the terrace. Scenes of old France flit before you as you turn the pages—the France of the last of the Valois, of the religious wars, of Catherine's *escadron volant*. The better to realise the misty groups, perhaps you close your eyes; presently you are in the presence of the smiling sage himself, clad in his accustomed black velvet and lace, for he has explained how he never could be bothered by conforming to the polychrome motley of his countrymen (*François accoustumez à nous bigarrer*). You are just about to ask him how it was possible for him and Ronsard and Jodelle, and the rest of a select little literary society, to keep their spirits serene amid the constant purposeless slaughter and unlovely debauchery of the times, when—*Trrrr, trrrr, trrrr*—a detestable bell awakens you with a start: you

rush off to take part in a division, voting ay or no, you care not which, on some question, you know not what — perhaps a reduction moved on the salary of the President of the Local Government Board because the Parish Council of Muddlepuddleton have removed their medical inspector from office.

THE END

APPENDIX

RABBIT-PROOF PLANTS

** An asterisk indicates those species which require protection during the first season or two after planting.*

Shrubs.

Azalea . . } Rhododendron . }	all species and varieties.
Honeysuckle . .	both the native species.
Fly Honeysuckle .	*Lonicera xylosteum*, and others.
Box	*Buxus sempervirens.*
Butcher's broom .	*Ruscus aculeatus.*
*Spanish broom . .	*Spartium junceum.*
*Mexican orange . .	*Choysia ternata.*
Cotoneaster . .	all species.
Hardy fuchsia . .	*Fuchsia Riccartoni* and *globosa.*
Tree pæonies . .	
Lilac (all species) .	*Syringa Persica*, etc.
Syringa (all species) .	*Philadelphus coronarius.*
Snowberry . .	*Symphoricarpus racemosus.*
Spurge laurel . .	*Daphne laureola.*
Mezereon . . .	*Daphne mezereum.*
St. John's wort (all species) . . .	*Hypericum calycinum, arietinum, patulum*, etc.
Spindlewood . .	*Euonymus europœus* and *latifolius.*
Guelder rose . .	*Viburnum opulus.*
Wayfaring tree . .	*Viburnum lantana.*
*Laurustinus . .	*Viburnum tinus.*
Hawthorn (all species)	*Cratægus oxyacantha*, etc.

Dogwood	*Cornus sanguinea.*
Sea buckthorn	*Hippophae rhamnoides.*
Roses	all species.
Spiræa	all species.
Deutzia	*Deutzia scabra*, etc.
Ribes	all species.
*Arbutus	all species.
*Berberis	all species.
*Escallonia	*Escallonia macrantha* and *rubra.*
*Partridge berry	*Gaultheria Shallon.*
Cassinia	*Cassinia* (Diplopappus) *fulvida.*

Herbs.

Snowdrops	*Galanthus rivalis* and varieties.
Snowflakes	*Leucojum vernum*, etc.
Daffodils	all species.
Star of Bethlehem	*Ornithogalum umbellatum, nutans*, etc.
Tulips	all species and varieties.
Dog's-tooth violet	*Erythronium dens-canis.*
Solomon's seal	*Polygonatum multiflorum.*
Asphodel	*Asphodelus ramosus*, etc.
Lilies (some species)	*Lilium umbellatum, dalmaticum*, etc.
Torch lilies	*Tritoma uvaria*, etc.
Lily of the valley	*Convallaria majalis.*
*Day lilies	*Hemerocallis fulva*, etc.
Saffron	*Colchicum autumnale*, and others.
Squills (most species)	*Scilla campanulata, verna*, etc.
Primrose (some species)	*Primula veris, Japonica*, but none of the *Auricula* section.
Flags	*Iris pseudacorus, fœtidissima* and all the 'flag' section.
Windflowers	*Anemone* (probably all species).
Crowfoot and buttercup	*Ranunculus* (many species, but not the pretty white *R. amplexicaulis*).

Globe flower	*Trollius europæus*, etc.
Spiræa	all species.
London pride	*Saxifraga umbrosa*, and several other saxifrages, but not the *Crassifolia* section.
*Lungwort	*Pulmonaria mollis*, etc.
Periwinkle	*Vinca major* and *minor*.
Monkshood	*Aconitum Napellus*.
Winter aconite	*Eranthis hyemalis*.
Harebell	*Campanula* (many species, especially the giant harebell, *C. grandis*).
New Zealand flax	*Phormium tenax*.
*Bamboos	probably all species of *Bambusa*, *Arundinaria*, and *Phyllostachys*.
Pampas grass	*Gynerium argenteum*.
Arundo	*A. donax* and *conspicua*.
Zebra grass	*Eulalia zebrina*.
Knotweed	*Polygonum cuspidatum*, *Sieboldii*, etc.
Violet	*Viola odorata*.
Foxgloves (biennial)	*Digitalis purpurea* and varieties.
Geranium	*Geranium pratense*, *Armeniacum*, and many others.
Mullein	*Verbascum thapsus* and others.
Orchids	all hardy terrestrial species.

N.B.—Most of the composite family (including asters, Michaelmas daisies, etc., are safe), but none of the equally numerous crucifers.

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